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Is the Tort System in Crisis? New Empirical Evidence

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Ohio and other states recently adopted major tort reform laws, limiting the ability of injured individuals to recover damages for their harm. These reforms followed in the wake of public outcries against large punitive damage awards, rising insurance rates, and perceptions that careless plaintiffs, responsible for their own injuries, had flooded the courts with frivolous claims. For many politicians and members of the public, tort reform seemed a reasonable response to a crisis in the tort system.

Scholars, on the other hand, have long questioned the existence of a tort crisis. Most individuals who suffer personal injuries never file lawsuits. Only a small percentage of filed claims proceed to trial. And both win rates and average verdicts are low for most personal injury claims.

Until recently, little empirical information was available to address this controversy over the need for tort reform. This Article uses data collected from Franklin County, Ohio, to examine jury verdicts rendered during the twelve years before Ohio adopted tort reform in 1996. These findings suggest, as scholars long suspected, that jury verdicts are modest in most personal injury lawsuits. High verdicts in a few high-profile cases capture headlines, but the majority of decisions favor defendants or pay small amounts to plaintiffs.

In addition to exploring the implications of these findings for the tort reform debate, this Article demonstrates how empirical research illuminates legal issues. Sound empirical research can help legislators and other policymakers choose just rules of law.

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INTRODUCTION

Business and insurance leaders repeatedly denounce the United States tort system. Critics charge that careless plaintiffs, responsible for their own injuries, seek to shift blame to deep pocket defendants. Much of this ire focuses on product liability and medical malpractice lawsuits.[1] Politicians exchange tales of the psychic who recovered a million dollars from her doctor, claiming that a CAT scan destroyed her psychic powers, and stories of the woman who won several million dollars from McDonald's after spilling a cup of coffee on herself.[2] Advertisements and media stories tell consumers that their health care costs will rise and that essential products will disappear from the market if

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[1] For examples of sources attributing the tort crisis primarily to medical malpractice and product liability lawsuits, see, *e.g.*, TORT POLICY WORKING GROUP, UNITED STATES ATTORNEY GENERAL, AN UPDATE ON THE LIABILITY CRISIS (1987); TORT POLICY WORKING GROUP, UNITED STATES ATTORNEY GENERAL, REPORT ON THE CAUSES, EXTENT AND POLICY IMPLICATIONS OF THE CURRENT CRISIS IN INSURANCE AVAILABILITY AND AFFORDABILITY (1986). *See also* STEVEN K. SMITH ET AL., BUREAU OF JUSTICE STATISTICS, U.S. DEPARTMENT OF JUSTICE, CIVIL JUSTICE SURVEY OF STATE COURTS, 1992: TORT CASES IN LARGE COUNTIES 1 (1995) (medical malpractice and product liability claims "are a primary focus of tort reform activity"); Deborah R. Hensler, *Trends in Tort Litigation: Findings from the Institute for Civil Justice's Research*, 48 OHIO ST. L.J. 479, 493 (1987) (distinguishing "three worlds" of tort litigation and noting that the second of these, typified by product liability and medical malpractice claims, includes the "high stake" claims that concern defendants so heavily).

[2] STEPHEN DANIELS & JOANNE MARTIN, CIVIL JURIES AND THE POLITICS OF REFORM 5 (1995) (tracing the evolution of these and other "horror stories" about the tort system); Steven Brill & James Lyons, *The Not-So-Simple Crisis*, AM. LAW., May 1986, at 1, 12–14 (analyzing favorite tort anecdotes); *cf.* Theodore B. Olson, *Was Justice Served?*, WALL. ST. J., Oct. 4, 1995, at A14 ("The civil justice system seems . . . demented, with freakish punitive damage bonanzas for persons who pour coffee on themselves or ricochet golf balls into their own foreheads.").

Media reports often distort the "facts" of these horror stories. The CAT scan story, for example, derives from an actual trial. The judge in that case, however, disallowed the psychic's claim for interference with her psychic abilities. The plaintiff recovered damages based on the permanent brain damage she sustained from the negligent administration of a contrast dye administered before the CAT scan. *See* NEIL VIDMAR, MEDICAL MALPRACTICE AND THE AMERICAN JURY 11–12 (1995). Similarly, most renditions of the famous McDonald's verdict omit the following facts: (1) the plaintiff was parked in her car (not driving) when the coffee spilled; (2) the plaintiff was hospitalized for eight days with third degree burns; (3) at the time of her accident McDonald's had already received more than seven hundred complaints from other people scalded by the restaurant's coffee; (4) McDonald's served its coffee at a considerably hotter temperature than other fast-food restaurants; (5) the plaintiff offered to settle the case for $20,000; (6) the trial judge reduced the punitive award to $480,000; and (7) the parties ultimately settled for an undisclosed amount. *See Is Lawsuit Reform Good for Consumers?*, 60 CONSUMER REP. 312 (1995).

runaway verdicts don't cease.[3]

Scholarly studies of the tort system paint a different picture. Most research suggests that plaintiffs file relatively few lawsuits compared to the estimated incidence of injury, that only a handful of those suits proceed to trial, that plaintiffs lose the majority of product liability and medical malpractice trials, and that verdicts are modest.[4] According to empiricists, punitive damages are rare in these and other fields of tort law.[5]

Where does the truth lie? As reformers on both the state and national level weigh new constraints on the tort system, it is essential to separate fact from fiction in the tort debate.[6] Yet little comprehensive data exists about tort verdicts. In many jurisdictions, it is difficult to obtain an accurate census of all jury verdicts—much less to compile detailed information about the cases behind those verdicts. Sophisticated analyses of recovery rates, controlling for a variety of factors, have been virtually nonexistent.

This study offers the first comprehensive look at product liability and medical malpractice verdicts in a representative urban county over a twelve-year period. The database includes every jury verdict rendered in the county's court of general jurisdiction during that time. The study also incorporates a wealth of detail about each case, including: (1) demographic characteristics of the plaintiffs and defendants; (2) ratings of the injury severity and type of alleged fault; (3) information about trial resources; and (4) details of settlement offers and

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[3] *See, e.g.*, DANIELS & MARTIN, *supra* note 2, at 7. For a discussion of other tort myths cultivated by the media, see, *e.g.*, Marc Galanter, *Real World Torts: An Antidote to Anecdote*, 55 MD. L. REV. 1093 (1996); Michael J. Saks, *Malpractice Misconceptions and Other Lessons about the Litigation System*, 16 JUST. SYS. J. 7 (1993).

[4] *See infra* notes 228–93 and accompanying text.

[5] *See infra* notes 258–64 and accompanying text.

[6] For a summary of recent tort reform laws, see AMERICAN TORT REFORM ASSOCIATION, TORT REFORM RECORD (Dec. 31, 1996) (summarizing reform measures enacted from 1986 through 1996); AMERICAN TORT REFORM ASSOCIATION, 1997 TORT REFORM ENACTMENTS (1998) (summarizing statutes adopted in 1997); AMERICAN TORT REFORM ASSOCIATION, 1998 STATE TORT REFORM ENACTMENTS (1998) (summarizing statutes adopted January through June 1998). *See also* STATE CIVIL JUSTICE REFORM (Roger Clegg ed., 1994) (summarizing reforms and offering strategies for reformers); Martha Middleton, *A Changing Landscape*, A.B.A. J., Aug. 1995, at 56 (summarizing both changes in state law and ongoing reform efforts).

In 1994, Republicans featured tort reform as part of their "Contract With America." Congress approved extensive reforms of product liability law in 1996, but President Clinton vetoed the final bill. *See* Thomas A. Eaton & Susette M. Talarico, *A Profile of Tort Litigation in Georgia and Reflections on Tort Reform*, 30 GA. L. REV. 627, 629 n.2 (reviewing legislative history and content of proposed statute); Kenneth Jost, *Tort Issues Resurrected*, A.B.A. J., Mar. 1997, at 18. Despite this setback, tort reform remains one of the Republican leadership's "top 10 priorities" in Congress. *Id.*

demands. These data permit complex statistical analyses of product liability and medical malpractice verdicts (the recoveries at the heart of the tort reform debate) over a full twelve years.[7]

The state from which these analyses are drawn, Ohio, enacted a comprehensive tort reform statute at the end of the twelve-year period we studied.[8] Thus, the data allow us to paint a complete picture of product liability and medical malpractice verdicts just prior to reform.[9] Equally important, the data enable us to ask whether trends in these verdicts justified the reform measures adopted by the legislature. Answering these questions is essential, not only to advise legislators considering tort reform in Congress and the other states, but to inform courts weighing the constitutionality of these reforms. Two

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[7] Previous studies have provided essential information about the tort system, but they fail either to examine all jury verdicts within a jurisdiction or to include sufficient control variables to support complex analyses. Two of the most recent studies draw their information from commercial jury verdict reporters. Although the authors of those studies restricted their analyses to the more reliable commercial reporters, they acknowledge that the reporters do not include all jury verdicts and that the selection may be biased. *See* DANIELS & MARTIN, *supra* note 2, at 66–68; ERIK MOLLER, TRENDS IN CIVIL JURY VERDICTS SINCE 1985, at 59–61 (1996). Our own comparison of the comprehensive data that we gathered in Franklin County with data reported for the same county in several verdict reporters suggests that the latter sources substantially under-report verdicts and introduce significant biases into the database. *See infra* notes 41–47 and accompanying text.

A few other studies contain more comprehensive coverage of verdicts—usually drawn from official reports of courthouse filings or independent searches of courthouse records. These reports, however, include only a limited number of variables and offer little statistical analysis of outcomes. *See, e.g.*, CAROL J. DEFRANCES ET AL., BUREAU OF JUSTICE STATISTICS, U.S. DEPARTMENT OF JUSTICE, CIVIL JUSTICE SURVEY OF STATE COURTS, 1992: CIVIL JURY CASES AND VERDICTS IN LARGE COUNTIES (1995); BRIAN J. OSTROM & NEAL B. KAUDER, EXAMINING THE WORK OF STATE COURTS, 1993: A NATIONAL PERSPECTIVE FROM THE COURT STATISTICS PROJECT (1995); ANDREW H. PRESS ET AL., FEDERAL TORT TRIALS AND VERDICTS, 1994–1995 (1997); SMITH ET AL., *supra* note 1. We built upon these and many other excellent studies of the tort system. This Article, however, attempts to move beyond the limitations of these earlier studies.

[8] *See* 1996 Ohio Laws 2046 (Act effective Jan. 27, 1997). For summaries of the Act's provisions, see *Special Issue – HB 350: The Death of Rights*, OHIO TRIAL, Nov. 1996; James F. Lang, *Tort Reform Could Benefit Municipalities*, BABBIT'S OHIO MUNICIPAL SERV., Jan./Feb. 1997, at 1; Douglas Hill Schwartz, *The Tortured Path of Ohio's Collateral Source Rule*, 65 U. CIN. L. Rev. 643 (1997); Stephen J. Werber, *An Overview of Ohio Product Liability Law*, 43 CLEV. ST. L. REV. 379 (1995).

[9] A subsequent article will compare post-reform verdicts in these fields with pre-reform data. The analyses presented here, therefore, provide an important baseline for assessing the effects of tort reform, in addition to presenting an unprecedented perspective on the tort system. We have also gathered data on motor vehicle verdicts in the same metropolitan area and plan to report on both pre- and post-reform trends in those verdicts as well.

courts recently struck down tort reform statutes under their state constitutions;[10] in at least one of those cases, the challengers introduced empirical evidence to show that the legislature lacked a rational basis for its reforms.[11] Expanding our empirical knowledge of the tort system, therefore, may guide both courts and legislatures confronting arguments about tort reform.

The first section of this Article explains the study's method, including our choice of Franklin County, Ohio, as a representative urban county. The next two sections report our findings on both product liability and medical malpractice claims. A final section then summarizes this evidence, compares it to results gathered by other researchers, and discusses the implications of the evidence for the tort reform debate. Our findings suggest, even more dramatically than those reported by other authors, that there is no crisis in either product liability or medical malpractice verdicts. On the contrary, the number of verdicts in each of these areas is small and plaintiff win rates are quite low. Both recovery rates and verdict size, moreover, have been declining over the last decade. In this context, the reforms adopted by some legislatures and proposed in many others are unnecessary at best and harmful at worst.

I. BACKGROUND

The first part of this section describes our choice of Franklin County, Ohio, as a representative urban county in which to collect data. The second part outlines other aspects of our method, including the manner of identifying cases, type of variables coded, and nature of the analyses we performed.

A. *Franklin County, Ohio*

Franklin County, Ohio, consists of the city of Columbus and many of its surrounding suburbs. In 1996, the county included 1,011,019 residents, while the city counted 675,045 residents. The greater metropolitan area, which encompasses five other counties, reported 1,437,512 inhabitants.[12] These figures rank Columbus as the sixteenth largest city in the United States; its metropolitan

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[10] Williams v. Wilson, 1998 Ky. LEXIS, at *63 (Ky. Apr. 16, 1998) (overturning limit on punitive damages); Best v. Taylor Mach. Works, 689 N.E.2d 1057 (Ill. 1997) (striking cap on noneconomic damages, abolition of joint and several liability, and other reforms).

[11] *See Best*, 689 N.E.2d at 1067–68.

[12] *See* GREATER COLUMBUS CHAMBER OF COMMERCE, ECONOMIC PROFILE 3 (Mar. 1997). We offer information on both Franklin County and its surrounding metropolitan area because the Franklin County courts may draw cases from the entire metropolitan region. *Cf.* Eaton & Talarico, *supra* note 6, at 645 (noting that a suburban county in another state reported an unusually low per capita filing rate and speculating that suburban residents may file their claims in a central urban county).

area is the eighth fastest growing in the country.[13]

Franklin County's population includes a representative mix of African American and White citizens, although it has fewer Asian and Hispanic residents than some states. About four-fifths, or 81.5%, of the Franklin County population is White, 15.9% is African American, 2.0% is Asian, and 0.9% is Hispanic.[14] The metropolitan area includes somewhat more adults between the ages of eighteen and forty-four than the national average,[15] but closely approximates national averages in other age categories.[16]

The Franklin County economy includes a mix of all types of urban employers. About one-quarter of employees work in trade (26.8%), while another fifth (21.4%) are employed in a variety of service industries, and more than a tenth (11.4%) toil in manufacturing.[17] The city's cost of living is just above the national average.[18]

These factors have made Franklin County a favorite test market site.[19] Pollsters and politicians have also focused on Columbus and other Ohio cities as

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[13] *See* ECONOMIC PROFILE, *supra* note 12, at 1.

[14] *See id.* at 3. In 1996, United States residents divided into these four racial groups: 82.8% White, 12.6% African American, 3.7% Asian American, and 0.9% Native American. *See* BUREAU OF THE CENSUS, UNITED STATES DEPARTMENT OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES: 1998, at 18 (1998). If residents of Hispanic origin are first identified as a group and all remaining individuals are then separated into the four racial groups listed above, the percentages are 10.6% Hispanic (of any race), 73.1% non-Hispanic White, 12.0% non-Hispanic African American, 3.4% non-Hispanic Asian American, and 0.7% non-Hispanic Native American. *See id.* at 19.

[15] Almost half (48.8%) of residents in the Columbus metropolitan area are between the ages of eighteen and forty-four; 43.2% of residents nationwide fall within that category. *See* ECONOMIC PROFILE, *supra* note 12, at 3. The age bulge most likely represents the presence of several large universities in Columbus. *See id.* at 2. Age figures for Franklin County alone are not available, so we report here the figures for the full metropolitan area.

[16] Adults between the ages of forty-five and sixty-four make up 17.8% of the metropolitan area's population, compared to 18.7% of the population nationwide. *See id.* Adults aged sixty-five or older comprise 10.0% of the metropolitan area's population and 12.5% of the population nationwide. *See id.* These figures leave 23.4% of the Columbus metropolitan population under the age of eighteen, and 25.6% of the nation's population in that youth range.

[17] *See id.* at 4. Other categories include government (16.8%); finance, insurance, and real estate (8.4%); health (6.8%); infrastructure (4.4%); and construction (4.0%). *See id.*

[18] *See id.* at 2.

[19] *See* Kent Gibbons, *Qube Alumni Return and Reminisce*, Multichannel News, Mar. 23, 1998, *available in* LEXIS, News Library, Multmw File (Columbus has "terrific cross-section demographics" and is "one of corporate America's favorite product test markets"); GREATER COLUMBUS CHAMBER OF COMMERCE, COLUMBUS ON THE MOVE! 1 (Mar. 1997).

representing a cross section of American opinion.[20] For similar reasons, we believed that Franklin County would allow a representative perspective on product liability and medical malpractice verdicts in the United States.

Comparative information about the legal system confirms this view. Ohio ranks twelfth out of twenty-nine reporting states in the number of tort claims filed per capita.[21] Similarly, Franklin County ranks twenty-first out of forty-five of the largest U.S. counties in per capita filing rates for tort claims.[22] The percentage of Franklin County tort complaints devoted to medical malpractice claims (4.8%) almost exactly matches the national average in large counties[23] and exceeds that average for product liability cases.[24] Franklin County's overall tort docket, as well as claims filed in the categories of medical malpractice or product liability, fall above the national average even for large counties.[25]

Plaintiff win rates and verdicts in Franklin County are similarly aggressive. Plaintiffs win 54.6% of civil jury verdicts in Franklin County, an average that somewhat exceeds the national average of 51.8% in large counties.[26] The county ranks nineteenth among forty-five of the largest counties in the percentage of verdicts awarding one million dollars or more.[27] Franklin County thus represents

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[20] Commentators have long considered Ohio a bellwether state for forecasting Presidential elections. *See, e.g.*, Keith Bradsher et al., *The 1996 Elections: The States, Midwest*, N.Y. TIMES, Nov. 7, 1996, at B10; Michael Winerip, *Ohio County Reluctantly Tilts Toward Clinton*, N.Y. TIMES, Oct. 28, 1996, at A14 (thirty-third article in a series chronicling voters' reactions in Canton, Ohio, the county selected by the *New York Times* as a representative site to track during the 1996 elections). Most recently, the Clinton administration chose Columbus as the site of a public forum on Iraq; nearby Akron hosted a forum on race relations. *See, e.g.*, James Bennett, *Clinton, at Meeting on Race, Struggles to Sharpen Debate*, N.Y. TIMES, Dec. 4, 1997, at A1; Robyn Meredith, *6,000 Ohioans Prove to Be a Tougher Audience Than Congress*, N.Y. TIMES, Feb. 19, 1998, at A8; Good Morning America, *Selling the U.S. Military Strategy* (ABC television broadcast Feb. 18, 1998), *available in* LEXIS News Library, Script File (White House chose Columbus for Iraq forum because the city is "used as the test market of America, from fast food to automated teller machines, to cable tv and fake fat").

[21] *See* OSTROM & KAUDER, *supra* note 7, at 22.

[22] *See* SMITH ET AL., *supra* note 1, at 7.

[23] *See id.* The national average is 4.9%. *See id.* at 2.

[24] Product liability claims constitute 11.9% of the tort cases filed in Franklin County, but just 3.4% of tort cases filed in large counties nationwide. *See id.* at 2, 7.

[25] There is a thriving legal community in Columbus. The postal zip code area for downtown Columbus contains the sixteenth highest number of lawyers in the nation. *See* Joe Blundo, *If You're Downtown, You Probably Just Passed a Lawyer*, COLUMBUS DISPATCH, Nov. 6, 1997, at G1.

[26] *See* DEFRANCES, *supra* note 7, at 4, 13.

[27] *See id.* at 13. The county ranks below national averages for large counties in both median and mean jury awards. *See id.* Much of the concern over medical malpractice and product liability verdicts, however, concerns high verdicts rather than low ones. The figures

a legal system that does not stand at either extreme of the nation's courthouses, but includes above average rates of claims filed, plaintiff wins, and high verdicts. If a tort crisis exists, evidence of that crisis should appear in Franklin County's jury verdicts.

B. *Method*

1. *Population*

Our study includes all jury verdicts rendered from 1985 through 1996 in product liability or medical malpractice cases filed in the Franklin County Court of Common Pleas, the trial court of general jurisdiction in Ohio. Although Franklin County plaintiffs may also file tort claims in the municipal court, few product liability or medical malpractice claims appear on that docket; the municipal court's low jurisdictional limit discourages such high-ticket claims.[28] Our database, therefore, includes almost all state verdicts rendered during the years we studied.[29]

We were unable to include any federal court verdicts in our study. Federal claims, however, account for only about 4% of tort cases nationwide.[30] As in the state system, only a fraction of those filings yield a jury verdict.[31] The number of

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reported here, moreover, include all civil jury cases. Thus, they would include low-ticket recoveries such as those in motor vehicle suits. It is possible that Franklin County has more of those recoveries than does the typical large urban county. More specific comparisons on product liability and medical malpractice verdicts, unfortunately, are not available.

[28] Until 1996, the municipal court had a jurisdictional limit of just $10,000 for civil cases; in 1996 that ceiling rose to $15,000. *See* OHIO REV. CODE ANN. § 1901.17 (Anderson 1998). Plaintiffs cannot recover more than the jurisdictional ceiling in the municipal court, even if the evidence justifies a higher award; this strongly deters claimants from filing product liability or medical malpractice claims in municipal courts.

[29] A few plaintiffs may have also filed complaints in the Ohio Court of Claims; that court has exclusive jurisdiction over any claims against the state. *See* OHIO REV. CODE ANN. § 2743.03(A)(1) (Anderson 1998). The total number of lawsuits filed in the Court of Claims, however, is quite small. In 1996, plaintiffs throughout the entire state filed only 492 judicial claims in the Court of Claims. *See* THE SUPREME COURT OF OHIO, THE OHIO COURTS SUMMARY: 1996, at D1 (1996). The number of jury verdicts involving medical malpractice or product liability complaints from Franklin County must be minuscule.

Almost all empirical research on the tort system focuses on trial courts of general jurisdiction. *See* Eaton & Talarico, *supra* note 6, at 638 n.26. Our study fits that pattern.

[30] *See* SMITH ET AL., *supra* note 1, at 1; *see also* TRENDS IN TORT LITIGATION—THE STORY BEHIND THE STATISTICS 6 (Deborah R. Hensler et al. eds., 1987) (tort plaintiffs file 95% of their claims in state court); *cf.* Michael J. Saks, *Do We Really Know Anything About the Behavior of the Tort Litigation System — And Why Not?*, 140 U. PA. L. REV. 1147, 1205 n.187 (1992) (federal filings constitute less than 2% of the civil justice system nationwide).

[31] About 4.1% of federal tort cases terminate in trial, with only three quarters of those

federal jury verdicts in medical malpractice or product liability lawsuits, therefore, is quite small.[32] We supplement our conclusions in Part IV with some discussion of federal data gathered by other researchers.[33] The bulk of tort cases, however, occur in state courts and we maintain our focus on those courts.

We identified Franklin County jury verdicts from two different sources. Our primary source was a series of verdict summaries prepared by Stephen E. Chappelear, a Franklin County attorney, on behalf of the Columbus Bar Association. Since 1985, Chappelear has attempted to identify and summarize every civil jury verdict delivered in the Franklin County Court of Common Pleas. Chappelear visits the courthouse personally and identifies jury verdicts by examining records in both the assignment commissioner's office and the clerk of courts' office.[34] He then gathers information about each case from the case file, attorneys, bailiff, and trial judge.[35] Chappelear publishes monthly summaries of these verdicts in *Bar Briefs*, a magazine sponsored by the Columbus Bar

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cases decided by a jury. *See* PRESS, *supra* note 7, at 1, 3. Overall, about 3% of federal tort cases produce a jury verdict.

[32] In 1994 and 1995, for example, juries rendered just 185 medical malpractice verdicts and 522 product liability verdicts in all federal districts combined. *See* PRESS, *supra* note 7, at 3 (combining product liability verdicts in both personal injury and property damage cases). With ninety federal districts, this works out to about one medical malpractice and three product liability verdicts in each district per year. *See also* Eaton & Talarico, *supra* note 6, at 656 (United States District Court in Fulton County, Georgia, a county comparable to Franklin County, rendered only one product liability verdict in 1992).

Despite the small number of jury verdicts in federal court, one set of researchers estimates that federal trials account for about 40.7% of jury verdicts in asbestos-related cases and 25.4% of verdicts in other product liability cases. *See* Theodore Eisenberg et al., *Litigation Outcomes in State and Federal Courts: A Statistical Portrait*, 19 SEATTLE U. L. REV. 433, 441 (1996). Even under this estimate, our analysis of state verdicts includes a clear majority of product liability claims. Still, further research should focus on federal verdicts in this area.

[33] *See infra* notes 228–93 and accompanying text.

[34] *See* STEPHEN E. CHAPPELEAR, SO WHAT'S YOUR CASE REALLY WORTH? A DECADE OF JURY TRIAL VERDICTS 4 (1995). Chappelear's task has been eased in recent years by computerization of the court's docket. For most of the years covered by our study, however, he had to examine daily docket lists for each judge to identify all jury verdicts. The tediousness of this task underscores how difficult it can be to compile a census of all jury verdicts—and how commercial services that rely upon attorney reports may seriously underestimate the number of jury trials. *See also infra* notes 41–47 and accompanying text (discussing the inadequacy of several commercial services attempting to report Franklin County verdicts).

[35] *See* CHAPPELEAR, *supra* note 34, at 4. In addition to these primary sources, Chappelear checks the *Ohio Trial Reporter*, a commercial reporting service, for additional details on jury verdicts. He also tracks both media coverage and appellate decisions related to the verdicts he identifies. We examined some of Chappelear's voluminous files on Franklin County jury verdicts and were impressed with his exhaustive background information on the cases.

Association. He has also published one ten-year collection of the verdicts[36] and several supplements to that collection.[37] We read all of Chappelear's summaries for verdicts delivered from 1985 to 1996 and incorporated all product liability and medical malpractice verdicts into our database.[38]

Our second source was a LEXIS database of jury verdicts. At the time we used the database, it included verdicts from at least three different commercial verdict reporters: *Jury Verdict Research, The Ohio Trial Reporter,* and *Jury Verdict Review Publications.*[39] The LEXIS database did not include any Franklin County verdicts before 1987, so we used it only to find verdicts for the last ten years we studied. As with Chappelear's data, we followed the same method to identify medical malpractice and product liability verdicts. First, we printed from the LEXIS database descriptions of all civil jury verdicts rendered in Franklin County between 1987 and 1996. Next, we identified all verdicts involving a medical malpractice or product liability claim.

Comparing the verdicts yielded by these two sources suggests that Chappelear was quite comprehensive in identifying verdicts, while the commercial services were woefully incomplete. Out of 135 verdicts reported by any source for the years 1987–1996, Chappelear omitted only four (3.0%). Even these four may have been due to differences in definition; at least two, for example, involved bifurcated trials.[40] The three commercial services combined in the LEXIS database, on the other hand, omitted 56.4% of the medical malpractice verdicts and 58.8% of the product liability verdicts.[41] The

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[36] *See id.*

[37] *See* STEPHEN E. CHAPPELEAR, 1997 JURY VERDICTS (Supp. 1997); STEPHEN E. CHAPPELEAR, FRANKLIN COUNTY COMMON PLEAS COURT 1995 AND 1996 CIVIL JURY TRIALS (Supp. 1995–1996).

[38] Chappelear divides his verdicts into eighteen different categories, including "medical malpractice" and "product liability." We agreed with his classification of all cases within those categories. We combed the other categories as well, however, and recategorized a few cases from those categories as either medical malpractice or product liability claims. As we explain further below, we adopted a liberal definition of both categories so that we would not miss any evidence of a crisis in either category. *See infra* notes 57 and 70.

[39] We performed most of our searches in the fall of 1997. LEXIS no longer includes the database for *Jury Verdict Research.* In the fall of 1997, however, complete *Jury Verdict Research* data for Ohio was available for the period 1987–1996.

[40] As with our definition of product liability and medical malpractice claims, we attempted to be as generous as possible in identifying jury verdicts. Chappelear may have rejected these cases because of a somewhat more narrow definition of "jury verdict."

[41] This poor showing was not due to different definitions of a "medical malpractice" or a "product liability" case. As explained in the text, we initially printed information on every Franklin County jury verdict reported by these services during the relevant years. We then read the case descriptions to categorize them as medical malpractice, product liability, motor vehicle, other tort, or other civil claim. We adopted a similar approach with Chappelear's

commercial services, in other words, reported less than half the medical malpractice and product liability verdicts from these ten years—even when we pooled the resources of all three services.[42]

Moreover, some biases emerged in the type of verdicts reported by the commercial services. Those services were significantly more likely to include a verdict when: (1) one of the defendants was female; (2) the plaintiff's age fell between eighteen and sixty-five; or (3) a plaintiff pressed a malpractice claim against a health care worker who did not hold a medical degree.[43] The services also appeared more likely to include a verdict when the trial lasted a greater number of days or occurred earlier in the period we studied, although these two correlations merely approached significance at the conventional level.[44] The latter result is particularly disturbing because it suggests that reliability of the commercial reporting services is not improving with time; on the contrary, it may be declining.

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summaries. *See supra* note 38 and accompanying text. Thus, for both groups of reported verdicts, we read the entire collection and exercised our independent discretion about how to categorize verdicts.

[42] Some researchers have identified the *Ohio Trial Reporter* as one of the more reliable local reporters. *See* DANIELS & MARTIN, *supra* note 2, at 91. Even with this reporter in the LEXIS database, we failed to identify more than half of the product liability and medical malpractice verdicts.

[43] Throughout this Article, we use the word "significantly" to denote statistical significance. We employ the conventional .05 threshold to mark that significance. *See* R. MARK SIRKIN, STATISTICS FOR THE SOCIAL SCIENCES 195 (1995). Under this standard, a result is statistically significant if there is no more than a 5% chance that the correlation, difference, or other result might have occurred through random errors in sampling or reporting. For further discussion of the concept of statistical significance, see DAVID S. MOORE, THE BASIC PRACTICE OF STATISTICS 349–405 (1995); SIRKIN, *supra*, at 175–205. In most cases, we report exact significance levels, using the form "p=.xxx." The probability that the three relationships reported in the text might have occurred by chance are, respectively, .039, .047, and .038.

For most of our results, we analyzed the entire population of jury verdicts in Franklin County. One could argue, therefore, that tests of statistical significance are unnecessary; any differences that emerge in our analyses reflect real differences in the population. Social scientists, however, still use tests of significance under these circumstances as a way of measuring the probability that the observed differences derived from errors in coding, processing, or handling data.

[44] In some instances, we report results that "approach" significance at the conventional level. Although social scientists commonly adopt .05 as the cutoff level for statistically significant results, *see supra* note 43, results that are only somewhat more likely to have occurred by chance can also be suggestive. *See* SIRKIN, *supra* note 43, at 195–96. This is particularly true if the results form a consistent pattern with other results that approach or achieve significance. We consider results that have a probability of occurring by chance greater than 5% but no more than 10% as "approaching significance" and designate them in that manner. We also report the particular p-value for these relationships.

Most troubling of all, the commercial services appeared more likely to report verdicts that favored plaintiffs and, among successful plaintiffs, to include higher recoveries. Plaintiffs won almost one-third (29.3%) of the verdicts reported by the commercial services, but only one-fifth (19.5%) of verdicts omitted by those services.[45] Similarly, the mean verdict for successful plaintiffs included in the commercial services was $1,483,619. For plaintiffs who prevailed in trials omitted by those services, the mean verdict was less than one-sixth that amount: just $236,972. Neither of these differences achieved or approached statistical significance,[46] but they are troubling nonetheless. They suggest that studies of the tort system based on verdicts drawn from commercial verdict reporters may overstate the extent to which the system favors plaintiffs.[47] We avoided these biases by using the commercial services merely to double-check and supplement Chappelear's data.

2. *Dependent Variables*

We used two measures of trial outcome. The first one is a dichotomous variable indicating whether the plaintiff prevailed. A second dependent variable reflects the size of the plaintiff's verdict. For many of our analyses, we confined examination of the second variable to plaintiffs who prevailed at trial. Thus, we asked whether mean verdicts were higher for successful female plaintiffs or for successful male ones.[48] As explained further below, our multivariate analysis of the size of medical malpractice verdicts was somewhat more complex in taking into account some information from defense victories.[49]

In analyzing both outcome and recovery amount, we focused principally on the jury verdict. As discussed below, trial judges and appellate courts reduced or overturned some verdicts, especially in medical malpractice cases.[50] Although

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[45] We limit these comparisons to the years 1987–1996 because we lacked any information on 1985–1986 verdicts from the commercial reporters.

[46] For the difference in recovery rates, p=.130; for the difference in verdict amounts for successful plaintiffs, p=.110.

[47] Numerous other authors have questioned the reliability of commercial verdict reporters. *See, e.g.*, VIDMAR, *supra* note 2, at 14; Eisenberg et al., *supra* note 32, at 439–40; Marc Galanter, *Reading the Landscape of Disputes: What We Know and Don't Know (and Think We Know) About Our Allegedly Contentious and Litigious Society*, 31 UCLA L. REV. 4 (1983); Michael Rustad, *In Defense of Punitive Damages in Products Liability: Testing Tort Anecdotes with Empirical Data*, 78 IOWA L. REV. 1, 31 (1992); Saks, *supra* note 30, at 1245–46.

[48] *See infra* notes 118–28 and accompanying text (exploring gender differences among product liability plaintiffs); *infra* notes 200–23 and accompanying text (gender differences among medical malpractice plaintiffs).

[49] *See infra* note 66 and accompanying text.

[50] *See infra* notes 136–37 and accompanying text.

we did not perform separate courthouse searches for post-verdict activity in each case, we noted that information whenever it was available from any of our data sources. We provide some information on those reductions and reversals in our discussion below. Unless otherwise noted, however, we continued to base our dependent variables on the jury's verdict. Most discussion of a tort "crisis" focuses on jury behavior, so we limited most of our analyses to that behavior. To the extent that judges already police jury verdicts, our findings thus overstate the size of any crisis.

We used actual dollar values in most reports of verdict amounts, plaintiff demands, and defendant offers. Only in bivariate and multivariate analyses incorporating time as an independent variable did we translate actual dollars to constant 1984 dollars.[51] The latter analyses allowed us to separate global inflation effects from specific trends within the tort system. By adhering to actual dollars in other analyses, we weighted the scales in favor of finding any tort crisis: actual dollars are higher than constant 1984 dollars, because they include the effects of inflation.

We recorded both of our outcome variables by case, as well as by plaintiff. In other words, for lawsuits with multiple plaintiffs, we analyzed outcomes both by total controversy and by individual plaintiff. As explained further below, some analyses lent themselves to case analysis, while others were better suited to analysis by individual plaintiff.

3. *Independent Variables*

We coded more than two dozen independent variables for each jury verdict. Information for these variables came from Chappelear's summaries, the LEXIS database, and independent searches of courthouse files. In a few instances, we also obtained information from appellate opinions reversing or affirming a jury verdict.

We noted whether each plaintiff was an individual, government agency, or institution.[52] If the plaintiff was an insurance company maintaining a subrogation claim, we both coded that fact and gathered information on the injured party.[53] For individual plaintiffs, we coded both gender and age. We later

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[51] For our multivariate analysis of verdict size in medical malpractice cases (see *infra* note 66 and accompanying text), we both translated dollars into constant 1984 dollars and divided those amounts by 10,000. This adjustment was necessary to produce a dependent variable with a distribution fitting the constraints of tobit analysis.

[52] "Institutions" included corporations as well as other private organizations that did not use the corporate form.

[53] Similarly, in wrongful death cases, we considered the deceased person as the "plaintiff" and used that person's gender and other characteristics in our analyses. We did not count consortium plaintiffs as separate individuals. Instead, we included any consortium award in the

grouped individuals into three age categories: minors (those under the age of nineteen), senior citizens (those over the age of sixty-four), and other adults (individuals between the ages of eighteen and sixty-five).[54]

Similarly, we designated defendants as individuals, government agencies, or institutions. We noted the gender of individual defendants and developed a variable signaling whether any defendant was female.[55] For medical malpractice cases, we further divided claims into three categories: those in which only institutional defendants appeared at trial, those in which at least one medical doctor (M.D.) appeared as a defendant, and those in which health care workers without M.D. degrees (such as nurses, optometrists, or dentists) were the only individual defendants.[56]

We had no objective measure of a defendant's liability or plaintiff's fault. We did, however, create a variable distinguishing the few cases in which a defendant admitted fault and contested only damages or causation. We also coded jury findings of plaintiff fault.

In medical malpractice cases, we distinguished four types of fault allegations: negligent failure to diagnose the plaintiff's condition, failure to obtain the plaintiff's informed consent, nonmedical error, and negligent medical treatment. We used the first three categories only when those were the only allegation of fault; we assigned any case that included a claim of negligent medical treatment to the last category. We also used a conservative definition of "nonmedical" error, including in that category only cases in which the fault lacked any medical component.[57]

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verdict for the directly injured party.

[54] We attempted to gather information on marital status, occupation, and race but were unable to obtain sufficient information on these categories. Information about race was particularly difficult to ascertain.

[55] Multiple defendants were much more common than multiple plaintiffs, so we developed this dummy variable indicating whether any defendant was female. We were unable to obtain sufficient information about defendants' ages to include a variable representing that information.

[56] The last category included cases in which an institutional defendant appeared along with health care workers who lacked an M.D. degree. The distinguishing feature of this last category was the absence of any licensed M.D.

[57] For example, we coded cases in which the plaintiff claimed that the defendant had forgotten to remove a surgical clamp or sponge after an operation as "medical" because the supervision of surgery involves a variety of medical decisions. A case in which hospital orderlies dropped a patient while transferring her from a gurney to an operating table, on the other hand, qualified as a "nonmedical error."

Some might question whether the latter cases are medical malpractice cases at all. We included them in our count of malpractice cases because some observers characterize all negligence actions against health care establishments in that manner. We also wanted to be as generous as possible in estimating the extent of crisis in malpractice cases. To the extent these

For product liability cases, we recognized five different contexts in which most injuries arise: workplace, home, recreational activities, medical treatment, and motor vehicles. We assigned injuries to the "home" context only if the activity involved some sort of chore or other home-based work. We included all recreational activities, whether they occurred at home or elsewhere, in the "recreation" category.[58] We also created a sixth category for product-related business disputes that involved only property damage. Finally, we assigned a few cases to a category of "other" contexts.[59] These contextual categories do not directly reflect the defendant's degree of fault, but we theorized that context might affect a jury's determination in product liability cases.[60]

To measure the severity of each plaintiff's injury, we developed a twelve-point rating scale. As Table I-1 reflects, this scale ranged from claims of pure property damage through various degrees of personal injury to death.[61] We used

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cases should not appear in the malpractice category, we have overestimated the number of cases in that field. Including these cases also increased apparent win rates and average verdicts in medical malpractice cases. As we note below, plaintiffs who alleged nonmedical negligence were more likely to recover, and recovered higher verdicts, than did other malpractice plaintiffs. These differences were not significant in our multivariate analyses, but the nonmedical negligence cases still inflated win rates and recoveries to some extent. *See infra* notes 156–58 and accompanying text.

[58] Stephen Daniels and Joanne Martin used a similar scheme to characterize the settings in which product claims arise. *See* DANIELS & MARTIN, *supra* note 2, at 168–72. They, however, appear to have assigned recreational injuries occurring at home to the "home" category. We attempted to distinguish work-like activities occurring in the home from recreational conduct occurring in that setting.

[59] These included a few injuries that occurred in public buildings and were difficult to characterize from available information as recreation or work related.

[60] On this score we built upon the work of Daniels and Martin, who found different patterns of recovery in varying product liability settings. *See* DANIELS & MARTIN, *supra* note 2, at 168–83.

[61] Once again, we built this scale on the work of Daniels and Martin. *See id.* at 150–51. We, however, expanded their scale to include separate categories for property damage and soft tissue injuries. We also renamed some of the categories.

We realize that our ordinal scale incorporates existing biases in damage awards, particularly those treating emotional injuries as less significant than physical ones. *See, e.g.*, Martha Chamallas, *The Architecture of Bias: Deep Structure in Tort Law*, 146 U. PA. L. REV. 463 (1998) (critiquing both the attempt to distinguish these two categories of injuries and the assumption that emotional injuries are less serious than physical ones). Some of the categories, moreover, are so difficult to compare that the ranking cannot truly be ordinal. Severe property damage, for example, might well constitute a more serious injury than minor physical bruises. The placement of soft tissue injuries, moreover, is problematic. A permanent soft tissue injury may not be as severe as a temporary injury involving broken bones, burns, or surgery. Juries, at least, may feel that way.

We dealt with these issues by using the ordinal scale but also creating dummy variables

this full ordinal scale in some analyses. In addition, we created dummy variables to distinguish both wrongful death cases and those involving only property damage.[62]

Table I-1: Twelve-Category Injury Scale

Value	Description	Sample Injuries
0	Property Damage Only	Fire damage, damaged stock
1	Emotional Distress Only	Mental anguish
2	Temporary Soft Tissue Injury	Bruises, muscle pain
3	Temporary Minor Injury	Lacerations, contusions
4	Temporary Significant Injury	Broken ankle, infection, minor burns
5	Temporary Major Injury	Major burns, several broken bones, temporary injury requiring surgery
6	Permanent Soft Tissue Injury	Chronic muscle pain, lost strength
7	Permanent Minor Injury	Loss of finger, loss of toe
8	Permanent Significant Injury	Loss of arm or leg, blindness in one eye, deafness, minor brain damage
9	Permanent Major Injury	Paraplegia, blindness in both eyes, serious brain damage, permanent damage to reproductive system
10	Permanent Grave Injury	Quadriplegia, severe brain damage, vegetative state
11	Death	Death

for property damage and death cases. These dummies allowed us to test whether juries responded to those injuries in a way that was out of line with their ordinal rankings. We also considered constructing dummy variables for emotional distress and soft tissue damages, but too few of those cases existed in our database to justify those dummies.

[62] As explained in the previous note, these dummies helped us explore the fit of our ordinal scale. *See id.* We suspected that juries might react to property damage and death cases in a manner that did not completely fit their ordinal ranking. Some of our results confirmed this suspicion. *See, e.g., infra* notes 86–87 and accompanying text.

Another cluster of independent variables attempted to measure resources devoted to resolving each claim. One of these variables reflects the number of months between the filing date of the complaint and the jury verdict. Another gives the number of days consumed by trial. A third variable counts the number of defense lawyers, while a fourth reflects the number of lawyers on the plaintiff's team. We also counted the number of expert witnesses used by plaintiffs and defendants, but this information was reliable only for cases decided after 1991. A final variable in this category indicates whether a verdict occurred in a retrial of a case in which a previous verdict had been overturned through a post-verdict motion or on appeal.

We had some settlement information (either plaintiff's last demand or defendant's best offer) in forty percent of the cases in our database. For most of these cases, information about both plaintiff's and defendant's offers was available. Because of the number of cases with missing values for this variable, we were unable to use the variable in multivariate analyses. We nonetheless include some descriptive information and bivariate analyses of settlement offers in our discussion.

We were able to obtain information on several variables related to gender. As noted above, we coded the gender for all individual plaintiffs, as well as whether any woman appeared among the defendants. We also coded whether the plaintiff's trial team included a woman lawyer and whether the defendant's team included any women. Finally, we noted whether the judge presiding over the trial was female.

Our final independent variable allowed us to track changes over time. We coded the month of each verdict on a continuous scale, with "1" representing January of 1985 and "144" representing December of 1996. This scale provided a more sensitive measure of time than simply using the year of verdict.

4. *Statistical Techniques*

In the discussions that follow, we provide descriptive information about most of the variables in our database. We then use a variety of bivariate techniques to explore the relationship between each independent variable and the two dependent variables.[63] The number of product liability cases in our database was too small to support multivariate analysis of outcomes in those cases. For medical malpractice verdicts, however, we conducted two types of multivariate

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[63] Bivariate analyses compare two variables without taking other factors into account. For discussion of common bivariate analyses, see MOORE, *supra* note 43, at 111–75 (correlations and relations in categorical data); *id.* at 435–62 (comparing means); *id.* at 522–53 (cross tabulations); *id.* at 556–87 (one-way analysis of variance). We performed all of our descriptive and bivariate calculations with SPSS version 8.0.

analysis. First, we constructed a logistic regression equation for plaintiff victories.[64] This analysis allowed us to assess the relationship between each independent variable and the likelihood that a plaintiff would recover, while simultaneously controlling for other variables in the equation.[65] We then conducted a tobit analysis on the verdict amount for successful plaintiffs, while censoring cases in which the defendant prevailed.[66] This analysis allowed us to assess the relationship between each independent variable and verdict size, while controlling for other factors in the equation. With multivariate analyses, we thus determined the unique effect each independent variable had on our two dependent variables: the likelihood that plaintiffs would recover and the size of their verdicts.

II. PRODUCT LIABILITY VERDICTS

Product liability verdicts comprise only a small percentage of the civil justice system.[67] Despite the relative paucity of these verdicts, critics of the tort

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[64] Logistic regression is the proper regression technique for a dichotomous outcome—such as whether a malpractice plaintiff won or lost the claim. For discussions of logistic regression, see J. SCOTT LONG, REGRESSION MODELS FOR CATEGORICAL AND LIMITED DEPENDENT VARIABLES (1997); MARIJA J. NORUSIS, SPSS ADVANCED STATISTICS USER'S GUIDE 45–69 (1990). We used the LIMDEP program for these analyses.

[65] We omitted a few variables with a high number of missing values from our multivariate equations. For both multivariate techniques described here, we substituted the mean for missing values and created a dummy variable marking cases with those missing values. If the coefficient for the dummy lacked significance, we dropped the dummy and retained the missing-value substitute in the variable of interest. If the dummy proved significant, we dropped both that dummy and the original variable from the equation. *See* JACOB COHEN & PATRICIA COHEN, APPLIED MULTIPLE REGRESSION/CORRELATION ANALYSIS FOR THE BEHAVIORAL SCIENCES 292–96 (2d ed. 1983) (recommending this treatment for missing values). We needed to drop variables with missing values in only a few instances.

[66] For a discussion of the tobit model and its uses, see LONG, *supra* note 64, at 187–216. Tobit "censors" the dependent value (zero) of defense victories while still incorporating information about the independent variables from those cases. Including the full value of defense victories in an ordinary least squares regression would produce misleading results because for the purpose of estimating damages, these cases were not worth "nothing." Completely excluding the defense victories, on the other hand, would obscure some relationships. Tobit analysis solves this problem by incorporating independent variable information about the defense victories but defining the dependent value as unknown for those cases. Once again, we used LIMDEP software for this analysis.

[67] In Franklin County, product liability claims accounted for only 3.8% of civil jury verdicts rendered between 1985 and 1994. *See* CHAPPELEAR, *supra* note 34, at 4. Nationwide, product liability cases constitute between 3.0% and 5.4% of civil jury verdicts rendered by state courts sitting in the nation's largest counties. *See* DEFRANCES, *supra* note 7, at 2. The latter percentage includes all "toxic substance" cases, many of which include product liability

system frequently invoke product liability trials as examples of the justice system gone awry. Similarly, substantial tort reform efforts focus on product-related claims.[68] Because of the centrality of product liability cases in the tort reform debate, we focused the first part of our research on those cases.

A. *Filings, Trials, and Verdicts*

Before examining product liability verdicts, we look briefly at the number of product liability claims filed each year in Franklin County. The state of Ohio, unfortunately, did not maintain separate data on product liability cases until 1990. Annual reports from that year through 1996, however, suggest that product liability filings are both low and declining in Franklin County. As Table II-1 shows, plaintiffs filed or reactivated only 174 product liability claims in 1990.[69] By the end of the seven-year period preceding reform, that number had diminished by almost two-thirds, to only sixty-one new or reactivated claims each year.

Table II-1: Product Liability Filings by Year in Franklin County, Ohio

Year	Claims Filed, Reactivated, or Transferred	Year	Claims Filed, Reactivated, or Transferred
1990	174	1994	61
1991	118	1995	66
1992	90	1996	61
1993	83		

claims. *See id.* at n.b; *see also* DANIELS & MARTIN, *supra* note 2, at 81–82 (estimating that product liability verdicts accounted for 4.2% of jury verdicts in state courts); *infra* notes 228–50 and accompanying text (reporting further data on the number of product liability claims and verdicts).

[68] *See, e.g.*, DANIELS & MARTIN, *supra* note 2, at 5. *See generally supra* notes 1, 6.

[69] Data for this table are drawn from *The Ohio Courts Summary* published each year by the Supreme Court of the State of Ohio. Table 1 reflects data from the table of "Courts of Common Pleas—General Division, Product Liability Overall Caseloads" for each year (1990–1996). The court system may not define "product liability" claims in precisely the same manner we used. The number of product liability jury verdicts reported by the annual *Ohio Courts Summary* for Franklin County, however, is very close to our own figures. This suggests a consistent definition.

The number of complaints producing jury verdicts was even smaller. Franklin County juries rendered just forty-four verdicts in product liability cases between 1985 and 1996—an average of only 3.7 verdicts each year.[70] Plaintiffs, moreover, were surprisingly unsuccessful on their product liability claims. As Table II-2 shows, only nine product liability claimants won jury verdicts over the entire twelve-year period we studied.[71] Just one out of every five trials (20.4%) produced a verdict for the plaintiff.

Table II-2: Product Liability Verdicts by Year in Franklin County, Ohio

Year	Plaintiff Wins	Defendant Wins	Total Verdicts
1985	1	3	4
1986	3	3	6
1987	1	3	4
1988	0	4	4
1989	1	2	3
1990	1	4	5
1991	1	5	6
1992	0	3	3
1993	0	2	2
1994	0	1	1
1995	1	3	4
1996	0	2	2
Total	9	35	44

Even when plaintiffs prevailed at trial, product liability verdicts were usually modest. As Table II-3 shows, one third of the winning verdicts fell under $100,000. Indeed, all three of these verdicts were less than $50,000; two plaintiffs recovered only $5,000 apiece, while one obtained $49,322. The median (middle) product liability award was $207,560, while more than three-quarters of the awards fell under $400,000.

[70] Categorizing lawsuits as "product liability" claims can be difficult. Product liability suits may overlap with premises liability, negligent operation of motor vehicles, and even contract cases. We used a relatively generous definition of product liability cases, including any case in which the plaintiff claimed in whole or in part that a defective product contributed to personal injury or property damage. Even with this generous definition, product cases remained scarce.

Two of the verdicts we studied occurred in the same case, after the court of appeals ordered a new trial in the wake of the first verdict. We counted these verdicts separately because each trial consumed separate resources and provided a distinct opportunity for recovery. The defendant, however, prevailed in both of these trials.

[71] In a tenth case, the plaintiff lost at trial, but obtained a reversal on appeal. The parties then settled the case for an undisclosed amount.

Table II-3: Verdicts for Successful Plaintiffs, Product Liability Trials in Franklin County, Ohio, 1985–1996

Verdict Range	Number of Cases	Percentage	Cumulative Percentage
$0–99,999	3	33.3	33.3
$100,000–199,999	1	11.1	44.4
$200,000–299,999	2	22.2	66.6
$300,000–399,999	1	11.1	77.7
$400,000 or more	2	22.2	99.9

The nine verdicts, however, did include two relatively high awards. One plaintiff recovered $783,000, while another obtained $4,350,000. These two verdicts pulled the mean (average) award up to $681,522. The high verdicts seemed to reflect severe damages, admitted liability, or both. The defendant conceded liability in the only product liability lawsuit to generate a verdict over one million dollars; the plaintiff in that case was a seventeen-year-old boy rendered quadriplegic. Even the high awards, moreover, reflected purely compensatory damages. No plaintiff persuaded a jury to award punitive damages on a product liability claim in Franklin County during the entire twelve-year period we studied.

The few plaintiffs who prevailed in product liability claims appeared to defend those verdicts successfully against post-judgment attack. According to our information, trial judges did not reduce any of the nine awards for plaintiffs.[72] Defendants appealed at least two of these awards, but the appellate court likewise affirmed both verdicts without reduction.[73]

Defendants, on the other hand, were somewhat less successful in defending their trial victories. Plaintiffs appealed at least eleven of the cases they lost from

[72] As noted above, *see supra* note 50 and accompanying text, we did not perform a complete search of post-trial activity for the jury verdicts in our database. We recorded information only when it was available in the verdict summaries we coded. In medical malpractice cases, however, we noted quite a few cases in which the trial or appellate court reduced a verdict. *See infra* notes 136–37 and accompanying text. It is noteworthy, therefore, that no such instances appeared in our data for product liability cases.

[73] During an earlier period, defendants may have been more successful in reducing plaintiff awards. A study of product liability cases decided in five states between 1983 and 1985 found that judges reduced awards in half those cases. *See* U.S. GENERAL ACCOUNTING OFFICE, PUB. NO. GAO/HRD-89-99, PRODUCT LIABILITY: VERDICTS AND CASE RESOLUTION IN FIVE STATES 45 tbl.3.5 (1989). Since the mid-1980s, juries may have become more conservative in product liability cases, leading to fewer reversals or verdict reductions. Indeed, we speculate below that juries may have become too conservative in recent years, leading to some reversals favoring plaintiffs. *See infra* note 75 and accompanying text.

1985 through 1996, and the appellate court remanded for a new trial in three of those lawsuits.[74] This pattern suggests that trial judges and juries may have been too harsh toward product liability plaintiffs during the period we studied and that appellate judges acted to curb that tendency. If trial courts and juries erred in product cases, in other words, their errors seemed to favor defendants rather than plaintiffs.[75]

B. *Plaintiffs and Defendants*

The plaintiffs in the forty-four product liability trials included individuals, government agencies, and corporations. One plaintiff was a city school system, seeking recovery against a manufacturer who had supplied ceiling plaster containing asbestos. Three other plaintiffs were insurance companies pursuing subrogation claims after compensating an insured for a product-related loss. In two of the subrogation cases, the injured party was an individual; in the third it was a research institute claiming property damage from an inadequate fire retardant.[76]

Individuals appeared as plaintiffs in the other forty product liability trials. One case stemmed from a product-related accident that killed one person and injured two others; plaintiffs sought to recover on behalf of all three victims. The other thirty-nine claims involved just one injured individual.[77] Overall, therefore,

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[74] Plaintiffs obtained settlements of an undisclosed amount before two of the other appeals were resolved; the appellate court affirmed the trial court in the remaining six cases.

Obtaining a new trial, of course, far from guaranteed victory for the plaintiff. One of the three plaintiffs who obtained a new trial lost before the second jury as well. Further information was unavailable about the other two cases.

[75] During an earlier period, James Henderson and Theodore Eisenberg found evidence that product liability defendants succeeded more often than plaintiffs on appeal and that defendants' success rates increased over time. *See* James A. Henderson Jr. & Theodore Eisenberg, *The Quiet Revolution in Products Liability: An Empirical Study of Legal Change*, 37 UCLA L. REV. 479 (1990) (analyzing cases published nationwide from 1976 to 1988). Our database is much smaller than the one analyzed by Henderson and Eisenberg and we did not focus on appellate outcomes—so our contrary findings are merely suggestive. It is possible, however, that trends have again shifted in appellate courts—especially as trial verdicts have begun to favor defendants so heavily.

[76] For most of the analyses reported below, we analyze these subrogation claims as if the injured party appeared as the plaintiff. Thus, we measure the severity of each injured party's physical damages. When we take subrogation into account, we specifically note that fact.

[77] As noted above, our tally of injured plaintiffs excludes any consortium plaintiffs. We included any damages for loss of consortium with the award for the plaintiff suffering direct physical injury. *See supra* note 53.

In one case, husband-and-wife farmers sued for injury to their livestock from allegedly defective feed. Although both appeared as plaintiffs, they alleged injury to their common

these forty-four trials involved the claims of one government agency, one private institution, and forty-four individuals.[78] For the remaining analyses in this section, we present data by claimant rather than trial.

We knew the gender of forty-one out of the forty-four individual plaintiffs. Nine of those plaintiffs (22.0%) were female, while thirty-two (78.0%) were male. Men were even more heavily represented among successful plaintiffs. Seven out of the eight successful individual plaintiffs were men; men won about one-fifth (21.9%) of their product liability claims, while women prevailed in only one-tenth (11.1%) of their lawsuits. The total number of cases is too small to draw statistically significant conclusions from this gender gap. The figures, however, suggest that men are more likely than women to assert product liability claims—at least at trial—and that men are particularly likely to succeed on those claims.[79]

We knew the plaintiff's age for about half (45.7%) of the individual plaintiffs. Among those twenty-one plaintiffs, about one-quarter (23.8%) were minors. None were over sixty-four. We noticed no difference in recovery rates between minor and adult plaintiffs although the number of plaintiffs included in this analysis was quite small.[80] We did observe that the mean age for all product liability plaintiffs in our database was only 37.2 years, suggesting that product liability claims proceeding to trial are the province of relatively young plaintiffs.

The defendants in all forty-four of the product liability trials were

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economic interest. Thus, we treated this lawsuit as involving one individual plaintiff.

[78] As explained above (see *supra* note 76), this tally substitutes the directly injured party for any insurance company pursuing a subrogation claim.

[79] Because our data are limited to jury verdicts, it is difficult to determine the origin of these gender differences. It is possible that men suffer more injuries giving rise to product liability claims—perhaps because they work more often with dangerous machines or toxic chemicals. It is also possible, however, that men are more likely to sue over these injuries than women are. Finally, men may be less likely than women to settle their product liability claims—or defendants may be less likely to offer men favorable settlements on these claims. All of these scenarios (and perhaps others) could explain the gender differences we observed.

Our data on gender differences in product liability verdicts are similar to findings by Thomas Koenig and Michael Rustad. Those researchers found that men outnumbered women four to one as punitive damage recipients in product liability cases. *See* Thomas Koenig & Michael Rustad, *His and Her Tort Reform: Gender Injustice in Disguise*, 70 WASH. L. REV. 1, 34 (1995). Because Koenig and Rustad examined a database composed exclusively of cases in which punitive damages had been awarded, they could not differentiate between gender differences in the award of punitives and gender distinctions in underlying win rates. *See id.* Our data suggest that men simply outnumber women as both product liability plaintiffs in jury trials and as successful plaintiffs at those trials. It is not surprising, under those circumstances, that they also outnumber women among plaintiffs receiving punitive damage awards.

[80] Among individual plaintiffs for whom we had age information, one out of five minors (20.0%) recovered, while three out of sixteen adults (18.8%) prevailed at trial.

organizations rather than individuals, so we could not examine any potential differences in the treatment of individual and organizational defendants. The defendant in one of our cases was a school district. In the other forty-three trials, the defendant was a private company such as the manufacturer or retailer of a product.

C. *Fault, Context, and Injury*

One product liability defendant conceded fault before trial. This defendant both lost the trial on causation/damages and suffered the largest jury award. Juries similarly penalized careless plaintiffs. Juries attributed fault to three of the product liability plaintiffs in our database, and all three of those plaintiffs lost at trial.[81]

The product liability claims arose in a variety of contexts—including the workplace, home, and highway. The largest category of claims proceeding to trial (28.3%) involved nonrecreational injuries that occurred at home,[82] while the next largest group (23.9%) involved workplace injuries. Another tenth of the claims (8.7%) were business disputes in which a business claimed economic loss from a defective product. Almost two-thirds (60.9%) of the claimants proceeding to trial, therefore, had suffered injury while laboring at home or in the workplace. The dominance of work-related claims contrasts with popular notions that product liability lawsuits center on recreational injuries.[83]

Only one-fifth of the plaintiffs (19.6%) suffered an injury in a purely recreational context, while another 4.3% were injured in a restaurant or other commercial setting that might be considered recreational. The remaining injuries occurred either in connection with a motor vehicle accident (10.9%) or medical treatment (4.3%).

Recovery rates varied somewhat according to the context of the injury. Plaintiffs injured in recreational contexts or through medical treatment appeared

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[81] Ohio is a comparative negligence jurisdiction, allowing plaintiffs to recover as long as their negligence was "no greater than the combined negligence" of all defendants and potential defendants. *See* OHIO REV. CODE ANN. § 2315.19(A)(2) (Anderson 1998). The Ohio Supreme Court has ruled that comparative negligence does not diminish the recovery of plaintiffs pursuing product liability claims based on strict liability. *See* Bowling v. Heil Co., 511 N.E.2d 373 (Ohio 1987). Product-related claims based on negligence, however, are subject to comparative fault rules.

[82] Nonrecreational injuries in the home included accidents with ladders, lawn mowers, and other appliances. We counted injuries arising from hobbies, swimming pools, and other recreational uses as "recreational" claims whether they occurred at home or elsewhere. *See supra* note 58 and accompanying text.

[83] *See* DANIELS & MARTIN, *supra* note 2, at 175–98 (commenting on a similar finding).

even less likely than other product liability claimants to recover.[84] Plaintiffs injured in motor vehicle accidents, conversely, appeared somewhat more likely than other plaintiffs to recover.[85] Partly because of the small number of total claims, however, none of these differences achieved statistical significance.

Injuries in litigated product liability claims varied from minor bodily injury to death.[86] One-tenth of the claims (11.4%) involved purely property damage, and one plaintiff asserted only emotional distress. Almost half the claims (47.8%) alleged temporary bodily injury although some of those temporary injuries involved multiple fractures or other serious harms. One-fifth of the litigated claims (20.5%) were for permanent bodily injury, while another fifth (18.2%) were for wrongful death.

Once again, we noticed some variation in recovery rate depending on the severity of the plaintiff's injury. Plaintiffs who asserted only property damage appeared somewhat more likely than other plaintiffs to prevail at trial; two of these five plaintiffs (40.0%) won their cases before juries, while only 17.9% of other product liability plaintiffs prevailed. Similarly, four out of the thirteen plaintiffs (30.8%) with temporary significant or temporary major injuries (*e.g.*, broken bones, burns, or injuries requiring surgery) prevailed before juries. Conversely, only one of the nine plaintiffs (11.1%) who suffered permanent injuries recovered at trial. Plaintiffswho died from their product-related injuries had an average recovery rate (25.0%) at trial.

The total number of claims is too small to draw firm conclusions from this pattern; although the differences are suggestive, none achieved statistical significance. These preliminary findings, however, suggest that juries do *not* necessarily find for the most severely injured plaintiffs. On the contrary, there is some tendency to return verdicts in favor of plaintiffs who suffer either property damage or temporary, although debilitating, personal injuries. Plaintiffs with more serious, permanent injuries—including those who suffer death—may fare less well at trial. Some researchers have suggested that this kind of pattern derives from jurors' psychological defenses—jurors blame the victims of

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[84] Only one out of nine plaintiffs injured in recreational accidents (11.1%) prevailed at trial, while neither of the two plaintiffs injured during the course of medical treatment obtained jury verdicts in their favor. In contrast, 18.2% of the plaintiffs injured at work, 23.1% of plaintiffs injured in nonrecreational accidents at home, and 25.0% of plaintiffs with business disputes prevailed at trial.

[85] Two out of five plaintiffs who asserted product liability claims stemming from motor vehicle accidents (40.0%) won favorable jury verdicts. This percentage, notably, falls between the overall win rate for plaintiffs in product liability suits (19.6%) and the much higher win rate for plaintiffs injured in all motor vehicle accidents. The latter percentage was 71.6% in our Franklin County data.

[86] For two plaintiffs, we lacked sufficient information to categorize their injury. The percentages reported here exclude those two claimants.

accidental harm when injuries are severe because they do not want to believe that such devastating injuries could happen to them.[87] On the other hand, this type of recovery pattern might also derive from settlement behavior; it is possible that defendants more readily settle meritorious claims brought by severely injured plaintiffs than less injured ones or that severely injured plaintiffs are more willing to proceed to trial even when their claims are weak. Whatever the explanation for the trend we identified, the pattern refutes any notion that juries resolve product liability claims on the basis of sympathy for the most injured claimants.

Among plaintiffs who suffered bodily injury and prevailed at trial, the degree of injury correlated positively with verdict size (r=.397).[88] Jury awards, therefore, appeared to follow the severity of the plaintiff's injury. The correlation, however, was not statistically significant (p=.378); the small number of successful claims involving bodily injury precludes drawing statistically reliable conclusions from that correlation.

D. *Conduct of Litigation*

The average product liability claim took almost three years to come to trial.[89] On average, 33.6 months elapsed between the filing of a product liability complaint and trial on that complaint.[90] Even when we excluded three trials that were retrials of earlier dispositions, so that we examined only time to first jury trial, the average product liability claim took 32.1 months to ripen for trial. Product liability claims that arose in recreational or motor vehicle settings appeared to take longer than other product claims to reach trial, but the differences were not large enough to be statistically significant.[91] Death cases did not take significantly longer than nondeath cases to come to trial; nor did we find

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[87] *See, e.g.*, Neil Feigenson et al., *Effect of Blameworthiness and Outcome Severity on Attributions of Responsibility and Damage Awards in Comparative Negligence Cases*, 21 LAW & HUM. BEHAV. 597 (1997).

[88] The letter "r" conventionally represents the correlation coefficient between two variables. For sources discussing correlation, see *supra* note 63.

[89] In this section, we analyze outcomes by verdict rather than by plaintiff. In other words, we treat the trial involving three plaintiffs as a single case.

[90] A nationwide survey of civil suits in the seventy-five largest counties yielded a similar figure; product liability claims averaged 32.0 months from complaint to jury verdict with a median of 28.9 months. *See* DEFRANCES, *supra* note 7, at 10.

[91] Claims that arose in a recreational setting took, on average, 41.4 months to reach trial, while nonrecreational claims took 31.4 months (p=.16). Similarly, product claims associated with motor vehicle accidents took 46.7 months to reach trial, while nonvehicular claims took 32.6 months (p=.22). Only three product claims arose out of motor vehicle accidents—counseling particular caution in interpreting the last figure.

any significant correlation between the severity of injury and the time to trial.

Once in the courtroom, the average product liability claim consumed 5.7 trial days. The range, however, was substantial—from less than one day to sixteen full days. More than a quarter of product trials concluded in three days or less, while more than half finished by the end of the fifth day. The context of an injury (*e.g.*, recreational, work-related, vehicular) was unrelated to the length of trial. Death cases, however, appeared to take longer to try than other product claims.[92]

Almost two-thirds of product claimants (63.6%) staffed their trials with a single lawyer. The remaining plaintiffs employed only two lawyers, for a mean of 1.4 plaintiff's lawyers in product cases. Two-thirds of all defendants (65.9%), on the other hand, used at least two lawyers at trial, while 11.4% employed four or five lawyers. The average number of defense lawyers in product trials was 2.0. Notably, product liability defendants used significantly more lawyers than did medical malpractice defendants.[93]

Although product liability plaintiffs used relatively few lawyers at trial, they employed more expert witnesses than product defendants did.[94] Only one out of twelve plaintiffs (8.3%) proceeded to trial without any expert witnesses. Three quarters of product liability trials used two or more expert witnesses for the plaintiff with four marking the highest number of those witnesses. One-third of product liability defendants, on the other hand, used no experts at trial, and almost half (41.7%) employed only one expert. The mean number of experts for product liability plaintiffs was 2.0, while for defendants it was 1.0.

Defendants devoted significantly more lawyers to wrongful death trials than to those in which the plaintiff survived.[95] Defendants also employed significantly more expert witnesses in death cases than in nondeath ones.[96] In addition, after excluding both death cases and claims involving only property damage from our analysis, we observed a high positive correlation between the

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[92] On average, death cases took 7.4 days to try, while other product claims took only 5.3 days. The difference was not statistically significant (p=.14), but may be suggestive. Overall, the severity of injury did not correlate significantly with trial length.

[93] Defendants in medical malpractice trials, on average, employed only 1.6 lawyers (p=.015). *See also infra* note 171 and accompanying text (discussing defense lawyers in malpractice cases).

[94] As discussed above, we have reliable data on expert witnesses only for cases decided after 1991. *See supra* text following note 62. The comparisons in this paragraph, therefore, analyze only the twelve product liability cases decided from 1992 through 1996.

[95] Defendants employed 2.6 lawyers, on average, when the plaintiff had died and just 1.8 lawyers when the plaintiff's injury was less than death (p=.041).

[96] In death cases, defendants averaged 2.2 experts, while in nondeath cases they averaged just .82 experts (p=.031).

number of defense experts and the severity of the plaintiff's injury.[97] Defendants, therefore, appear to have devoted more resources (both lawyers and expert witnesses) to trials involving claims of death or serious personal injury. The strategy seems rational, because defendants would expect the highest verdicts in those cases.

Plaintiffs, like defendants, seemed to devote more expert witnesses to claims involving serious injury or death.[98] Again, the relationship could signal the possibility of higher verdicts in those cases, justifying a greater investment of resources. Alternatively, claims of serious injury or death may require more expert witnesses because the question of setting damages is more complex.

Curiously, especially given their willingness to devote more expert witnesses to these cases, plaintiffs employed significantly *fewer* lawyers in product liability trials involving serious physical injuries than in those claiming less serious harm.[99] Even in death cases, plaintiffs appeared to use fewer lawyers than they did for other product liability claims.[100] It is hard to explain this paradox. Perhaps plaintiffs view serious injury claims as simpler to win or as more susceptible to jury sympathy, thereby reducing the need for a large legal team.[101] Alternatively, lawyers from smaller offices (with fewer attorneys to devote to trial) may be more likely to push disputed claims involving severe injuries to trial than are their colleagues from larger firms; this difference could explain the trend towards fewer plaintiffs' attorneys in product liability trials centered on more serious injuries.

We noted one further relationship between legal staff and expert witnesses that is interesting. The correlation between the number of plaintiff's experts and number of defendant's lawyers was quite high (.619, p=.001). This correlation may suggest a tendency for plaintiffs to fight difficult cases on the facts (by using

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[97] The correlation was .886 (p=.003). Caution should be exercised in interpreting this correlation, however, because it is based on only eight observations.

[98] Plaintiffs introduced, on average, 2.5 experts in death cases, but only 1.4 experts in other product cases. The overall correlation between severity of injury and number of expert witnesses (once we excluded claims involving only property damage) was .742. Neither of these differences achieved statistical significance (p=.119 for the first comparison and p=.113 for the second), and both are based on a small number of cases, so they are merely suggestive.

Plaintiffs also employed significantly more expert witnesses (3.3) when the injured person was a child than when the injured party was an adult (1.4, p=.026). This difference may have reflected the need for expert testimony to show a child's future earnings and claimed loss.

[99] The correlation coefficient for these two variables was -.33 (p=.029).

[100] On average, plaintiffs employed 1.1 lawyers in death cases, but 1.4 lawyers in nondeath cases. This difference, however, did not achieve statistical significance (p=.127).

[101] If such a perception exists, it appears to be incorrect. As explained above, plaintiffs with more severe injuries were less likely to recover in product liability trials than were plaintiffs with more modest injuries. *See supra* notes 86–87 and accompanying text.

additional expert witnesses), while defendants combat them on the law (by employing additional attorneys). On the other hand, the relationship may derive simply from the plaintiff's burden of proof in a civil suit combined with the product liability defendant's incentive (and financial ability) to invest heavily in legal counsel. As the proponent in court, plaintiffs often find expert witnesses essential to establish both liability and damages; adding expert witnesses may be unavoidable for plaintiffs in complex cases. Product liability defendants, on the other hand, have an incentive to invest especially heavily in trial defense because any courtroom loss raises the possibility of multiple claims from other users of the same product. The corporate defendants who predominate in product liability trials, moreover, often have the resources to respond to that incentive.[102] Taken together, these circumstances might prompt plaintiffs to add expert witnesses to satisfy their burden of proof in difficult cases, while defendants add attorneys in those cases.

Whatever the explanation for the intriguing correlation between the number of plaintiff's expert witnesses and that of defendant's trial counsel, the more important fact is that both of those numbers are surprisingly low. Although product liability claims offer some of the highest stakes in civil litigation—for both plaintiffs and defendants—parties staff those cases sparsely. Neither armies of experts nor cadres of lawyers marked the typical product liability trial in Franklin County.

None of these trial-related variables, moreover, seemed to affect the plaintiff's likelihood of recovery. Neither trial length nor elapsed time between complaint and trial correlated significantly with plaintiff success. Nor did the number of lawyers or expert witnesses (for either side) vary significantly between successful and unsuccessful plaintiffs.[103] Our failure to find any significant relationship among these variables does not mean that plaintiffs and defendants made poor resource allocation decisions. On the contrary, if both

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[102] Product liability plaintiffs also have an incentive to invest heavily in their trials. Although they are unlikely to be repeat players, the trial represents the plaintiff's only opportunity to recover damages for an often devastating injury. The individual plaintiffs who predominate in product claims, however, often lack the means to invest that heavily in their trials. Indeed, most of these plaintiffs rely upon contingency contracts to retain their trial counsel, and contingent fee lawyers have an incentive to minimize the number of counsel participating in a case so that they maximize the value of the contingency agreement. This is especially true in fields like product liability in which plaintiff win rates are so low.

[103] Likewise, none of these trial-related variables correlated significantly with the amount that successful plaintiffs recovered. The number of cases for these analyses, however, was too small to be meaningful; only nine product liability plaintiffs recovered a jury verdict during the years we studied, and we lacked information on some trial-related variables for some of these cases.

sides made equally effective decisions, their efforts would have canceled one another out.

E. *Settlements*

Table II-4 summarizes the settlement information available on product-liability claims that proceeded to trial.[104] We have some information on seventeen (37.0%) of the claims, and information on both parties' final settlement offers in fourteen (30.4%) of the cases.

Plaintiffs' settlement demands correlated strongly with the severity of their injuries; plaintiffs who had suffered more severe bodily injuries demanded, on average, higher settlements than did other plaintiffs.[105] Defendants' offers, on the other hand, showed no correlation with injury severity.[106] Nor did the size of defendants' offers correlate with that of plaintiffs' demands; indeed, this correlation coefficient was negative.[107] These facts suggest that plaintiffs and defendants differed, not only in their assessment of fault, but in their valuation of the plaintiff's injury.[108] Alternatively, the defendants' somewhat surprising pattern of offers might be due to their perception that the most seriously injured plaintiffs were also least likely to recover; thus, they discounted those potential awards more heavily than possible awards to less seriously injured plaintiffs.[109]

Our analyses provide some support for the latter perception; as noted above, the most seriously injured plaintiffs were somewhat less likely to prevail in product liability trials.[110] Overall, however, defendants' settlement offers did not accurately predict a plaintiff's likelihood of winning at trial. Instead, there was

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[104] We analyze settlement information by plaintiff rather than by verdict. No settlement information, however, was available for the one product liability case with multiple plaintiffs.

[105] We excluded cases involving only property damage from this analysis because of the difficulty of comparing property damage to bodily injury. After excluding the former cases, the correlation between severity of the plaintiff's injury and size of the settlement demand was .782 (p=.003).

[106] This correlation coefficient was -.026 (p=.925).

[107] $r = -.224$; p=.484.

[108] If plaintiffs and defendants differed only on their assessment of fault, we would expect defendant's offers to fall below plaintiff's demands but still to correlate positively with them. Defendants, in other words, would make higher offers to seriously injured plaintiffs because their financial exposure in those cases was higher.

[109] In medical malpractice cases, in contrast, the size of both plaintiffs' demands and defendants' offers showed a significant positive correlation with injury severity once we excluded wrongful death cases. *See infra* note 188 and accompanying text. The size of plaintiffs' demands also seemed to correlate positively with that of defendants' offers. *See infra* note 191 and accompanying text.

[110] *See supra* note 87 and accompanying text.

very little correlation between these two variables.[111] Nor did the size of a plaintiff's demand accurately predict the plaintiff's likelihood of recovering. Indeed, the relationship between the latter two variables was negative, although nonsignificant.[112]

Table II-4: Final Settlement Offers and Demands, Product Liability Claims in Franklin County, Ohio, 1985–1996

Defendant's Last Offer	Plaintiff's Last Demand	Verdict	Defendant's Gain	Plaintiff's Gain
0	240,000	0	240,000	0
0	n/a	0	n/a	0
0	1,000,000	0	1,000,000	0
1500	15,000	0	15,000	-1500
2500	300,000	0	300,000	-2500
3000	30,000	49,322	-19,322	46,322
3250	4100	0	4100	-3250
3500	n/a	228,819	n/a	225,319
5000	87,000	5000	82,000	0
7500	300,000	0	300,000	-7500
12,000	n/a	0	n/a	-12,000
15,000	750,000	0	750,000	-15,000
15,000	350,000	0	350,000	-15,000
20,000	175,000	0	175,000	-20,000
25,000	50,000	180,000	-130,000	155,000
25,000	475,000	0	475,000	-25,000
50,000	100,000	0	100,000	-50,000

Plaintiffs made a "mistake" by rejecting settlement offers and going to trial more often than defendants did; in four cases, plaintiffs gained no additional recovery (beyond the defendant's last offer) by going to trial, while in ten cases the plaintiff recovered less at trial than the defendant had offered in settlement. All ten of the latter cases were cases in which the defendant offered a small

[111] $r = -.085$ ($p=.747$).

[112] $r = -.407$ ($p=.148$). It is plausible that plaintiff's demands would correlate negatively with trial success because plaintiffs typically lower their demands during active settlement negotiations. In weak cases, defendants might refuse to offer any settlement to the plaintiff or might make a token offer that is too low to elicit counter bargaining from the plaintiff. In these cases, then, the plaintiff's "last demand" would be the very high demand with which the plaintiff attempted to initiate settlement discussions. In more meritorious cases, the parties might have narrowed the gap between their offers before breaking off negotiations—thus leading to lower "last offers" for those more meritorious claims.

settlement (never more than $50,000 and usually less than $20,000) and the plaintiff lost at trial.[113]

Defendants, on the other hand, "mistakenly" rejected settlement demands and went to trial in only two cases. In the twelve other cases for which we know the plaintiff's final demand, the defendants saved substantial money by going to trial rather than satisfying that last demand. In nine of those twelve cases, the savings amounted to $100,000 or more. Indeed, in one controversy the defendant refused to offer any settlement in response to a $1,000,000 demand and prevailed at trial.

Despite these differences between plaintiffs and defendants, *both* plaintiffs and defendants made rational decisions to proceed to trial if we consider cases in the aggregate. Although plaintiffs lost four-fifths of the cases they tried, substantial verdicts in the nine cases they won more than offset their "losses" in declining small settlement offers on cases they lost. Overall, plaintiffs netted $274,891 by rejecting defendants' settlement offers and proceeding to trial. On average, this was a gain of $16,170 per case. Defendants gained even more in the aggregate. By refusing to satisfy plaintiff demands, defendants saved more than three-and-one-half-million dollars ($3,641,778) in the aggregate or an average of $260,127 per case.

The savings on both sides, of course, are not nearly as large if we consider the costs of going to trial. Especially in the case of plaintiffs, trial costs may have eliminated apparent savings.[114] It is also difficult to estimate the impact of these trials on other cases in the pipeline. Defendants may have saved even more than the numbers in Table II-4 suggest by establishing precedents against particular types of recovery. Likewise, plaintiffs (and their lawyers) may have gained more than the table reveals by demonstrating to settlement-wary defendants that they were willing to go to court. The "gains" recorded in Table II-4, therefore, offer only a rough estimate of the gains each side realized by going to trial.

Aggregating the gains and losses in Table II-4 is artificial in another sense; different parties and lawyers participated in the different cases. No one individual

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[113] Defendants offered no settlement in three (17.6%) of the cases for which we have information on defendants' offers. This percentage is quite similar to the percentage of "zero offers" in product liability cases reported in a study by Samuel Gross and Kent Syverud. *See* Samuel R. Gross & Kent D. Syverud, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 MICH. L. REV. 319, 360 (1991) (product liability defendants made zero offers in 21.6% of cases for which offer information was available).

[114] Samuel Gross and Kent Syverud estimate that a trial costs at least $10,000 in economic costs; consequently, in their analysis of litigation outcomes, they counted plaintiffs as successful only when they recovered at least $10,000 more than they would have received through settlement. *See id.* at 336–37. If we use the same $10,000 figure to assess plaintiffs' trial costs, plaintiffs realized only about $6,170 per case by pushing claims to trial.

or company realized a net gain from these diverse lawsuits.[115] Nonetheless, the aggregate figures illustrate a dynamic that may inform individual settlement negotiations. Defendants in product liability suits have a strong win record in Franklin County; they are likely to prevail if they go to trial. Overall, therefore, defendants will recognize substantial savings by declining plaintiffs' demands and pushing the case to trial—although they occasionally will pay more in response to a jury verdict than they would have by satisfying the plaintiff's demand.

Plaintiffs have an incentive to proceed to trial for a different reason. They are more likely than defendants to lose at trial, but because defendants' settlement offers are low, they will recover enough in their occasional wins to make trial tempting. No one plaintiff will recognize an overall gain; indeed, four out of five plaintiffs will lose. The payoff on the one-in-five gamble, however, is about $681,522 (the mean verdict for plaintiffs who prevailed on product liability claims) compared to an average settlement offer (in these litigated cases) of only $11,074 offered by the defendant.

Under these circumstances, it is surprising that the number of product liability trials remains so low. The low number of trials, contrasted with the above incentives to proceed to trial, suggests that other factors constrain most claims to settle or to evaporate without payment.[116] To trace those factors, we need information about the vast majority of product liability claims that fail to reach court.[117] Based on the limited information in this database, however, it appears that neither plaintiffs nor defendants resolve too many claims at trial or bring a poor assortment of controversies to court; both sides recognized economic gains by bringing this set of disputes to the courtroom. It is possible, of course, that either plaintiffs or defendants push too few cases to trial—or that they could choose a better array of cases for the jury. To evaluate the latter decisions, we must obtain information on the full set of claims that are settled or withdrawn.

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[115] In the case of defendants, an aggregate gain is somewhat more plausible. Certain companies or industries undoubtedly are repeat players in product liability lawsuits. Insurance companies who provide liability insurance are even more likely to be repeat players.

[116] Commentators often speak of complaints that fail to reach trial as "settling." In many of these cases, however, the plaintiff settles for no payment at all. One study estimates the percentage of medical malpractice claims dismissed without payment as 40%. *See* VIDMAR, *supra* note 2, at 24. Obtaining further information about these claims, as well as about claims that never generate a legal complaint, is one of the most pressing tasks in studying the tort system.

[117] We are in the process of gathering information about settled and abandoned claims from plaintiffs' lawyers in Franklin County. Although the data gathering process is time-consuming, especially because of the need to protect client confidentiality, those data should offer the first detailed perspective on tort claims that fail to reach trial.

F. *Gender Differences*

As noted above, men greatly outnumbered women among the plaintiffs who tried product liability claims in Franklin County.[118] Men were also more likely than women to win their product liability suits although these differences were not statistically significant.

Male plaintiffs most heavily outnumbered female ones in nonrecreational home-based injuries where men accounted for twelve of the thirteen disputes (92.3%) resolved by juries. Women, on the other hand, were most prevalent in product claims arising out of motor vehicle accidents (33.3% female) and medical care (50.0% female). The overall numbers are too small to draw firm conclusions, but the pattern is interesting. It is possible that men suffer more product-related injuries than women while working around the home, but women suffer disproportionately from those injuries while receiving medical treatment.[119] It is also possible, however, that the discrepancies arise from differences in claiming or settlement rates.[120] Without further information on claims settled or dropped before trial, it is impossible to distinguish those effects in our data.

Women were also scarce among the lawyers who tried product liability claims. No women represented product liability plaintiffs, while only four defendants (8.7%) employed at least one woman at trial. Those few female defense lawyers tended to work on teams with a higher number of lawyers.[121] They also were more likely to appear in more recent trials.[122] These two relationships suggest that women's participation in product liability trials may be on the rise.[123] Still, given the large number of women who have graduated from law school during the last twenty years,[124] the number of female lawyers

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[118] *See supra* note 79 and accompanying text.

[119] Men, for example, may be more likely to work with ladders, lawn mowers, power tools, and other products that cause serious injury while performing home-based chores.

[120] *See supra* note 79.

[121] Defense teams with a female lawyer averaged 2.5 lawyers overall, while all-male defense teams averaged 2.0 lawyers. In part because of the small number of teams with any female lawyers, this difference was not statistically significant (p=.398).

[122] The correlation between trial year and presence of a female defense lawyer was .280 (p=.059).

[123] Large defense teams may be more likely than small ones to include junior lawyers. The appearance of women on the former teams, therefore, may signal that they are beginning to move up through the ranks of trial lawyers. Similarly, the appearance of more women at recent trials suggests that the number of female trial counsel is growing.

[124] By the 1977–1978 academic year, women constituted almost one-third of all enrolled law students. *See* AMERICAN BAR ASSOCIATION, APPROVED LAW SCHOOLS: STATISTICAL INFORMATION ON AMERICAN BAR ASSOCIATION APPROVED LAW SCHOOLS 451 (1998 ed.

participating in product liability trials is surprisingly low.

Two other noteworthy gender correlations appeared in our analyses. Cases staffed with at least one female lawyer took longer to come to trial,[125] and these cases generated significantly higher settlement offers (on average) than did cases staffed with no women.[126] The total number of product liability claims was too small to support multivariate analysis, so we cannot be sure these relationships would persist after controlling for other factors. Women lawyers, for example, never appeared solo at trial; they always worked on teams. It is possible that the cases on which these women worked were, on average, more complex than cases staffed by men alone. If so, the length of pre-trial delay and size of settlement offer might derive from the complexity of the case rather than the presence of a female attorney.[127] The bivariate correlation, however, suggests the utility of exploring further the relationship between gender and trial strategies.

Female judges presided over five of the product liability claims (10.9%) in our database. Women were significantly more likely to preside over recent verdicts than older ones.[128] Somewhat more surprisingly, we detected a possible negative relationship between the presence of a female judge and the number of lawyers for the plaintiff. Only one lawyer represented the plaintiff in each of the five cases tried before a female judge. An average of 1.4 lawyers, on the other hand, represented plaintiffs before male judges. This difference merely approached significance at the conventional level (p=.059), but it signals a possible relationship. Once again, the finding suggests the fruitfulness of exploring a variety of gender relationships in the courtroom.

1997) (during the 1977–1978 academic year, 113,080 students were enrolled in J.D. programs, and 31,650 of them were women). By 1987–1988, women comprised more than 41% of all law students, and by 1996–1997, the percentage of women students exceeded 44%. *See id.*

[125] The correlation between length of time before trial and presence of a female defense lawyer was .311 (p=.040).

[126] The correlation between size of the defendant's last offer and presence of at least one woman on the defense team was .569 (p=.017). This positive correlation did not stem simply from women working on more recent cases with inflation-affected offers. Even after substituting constant 1984 dollars for actual settlement offers, the correlation between size of the defendant's last offer and presence of a female attorney was .550 (p=.022).

[127] The relationships, however, do not seem to derive simply from the fact that women worked on larger defense teams. The correlation between number of defense lawyers and length of pre-trial delay was negative (r=-.076) and nonsignificant (p=.632). The correlation between size of settlement offer and number of defense attorneys was positive (r=.401), but it did not reach significance (p=.111) and was not as large as the correlation between settlement offer and presence of a female attorney.

[128] The correlation between verdict year and presence of a female judge was .296 (p=.046).

G. *Trends*

A "crisis" may emerge from trends in filings, trial rates, or verdicts, rather than from average figures over more than a decade. In this section, we briefly examine changes in product liability cases during the twelve years we studied.

As noted above, there is no evidence that product liability filings increased in Franklin County during these twelve years. On the contrary, as Table II-1 shows, filings decreased by almost two-thirds between 1990 (the first year such data were available) and 1996. In 1996, plaintiffs filed or reactivated only 61 product liability cases in Franklin County compared with a high of 174 in 1990.

Nor did the number of product liability verdicts increase during the last twelve years. As Table II-2 demonstrates, the number of product liability verdicts never exceeded six during each of those years; the table shows no marked growth in verdicts. On the contrary, the number of product liability trials may have declined slightly during the most recent five years we studied. From 1992 to 1996, only twelve product liability claims proceeded to trial—an average of only 2.4 trials each year. During the preceding seven years, thirty-two claims (or about 4.6 claims each year) produced jury verdicts. Thus, the number of product liability trials in Franklin County has been low for more than a decade—and was particularly low during the five years immediately preceding reform.

Nor did we find any evidence that either a plaintiff's likelihood of recovery or the size of plaintiffs' verdicts increased over the twelve-year period before reform. Again, Table II-2 suggests that just the opposite may be true. Plaintiffs won eight product liability lawsuits during the seven years stretching from 1985 through 1991. During the five years following 1991, plaintiffs won just a single additional award. The median award for successful plaintiffs before 1992, moreover, was $218,190, while the mean award was $766,088. The single post-1991 award was for just $5,000. In part because of the small number of product liability trials, these trends did not attain statistical significance.[129] They suggest, however, that plaintiffs' recoveries may have been diminishing during the years preceding reform—certainly those recoveries were not increasing.

We found only two significant trends over time. As reported above, defense

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[129] When we correlated verdict size (measured both in actual dollars and constant 1984 dollars) with trial year, the correlations were negative but not significant for the twelve-year period. For a more sensitive measure of time, we also correlated verdict size with sequentially numbered months. Once again, the correlations were negative but nonsignificant. Pro-plaintiff verdicts likewise showed a negative, but nonsignificant, correlation with both measures of time.

We also compared the five-year period immediately preceding reform with the seven years preceding that. Plaintiffs were less likely to recover during the more recent period, and recovered smaller verdicts when they did prevail, but again the differences failed to achieve statistical significance.

teams were more likely to include female lawyers during the more recent years we studied.[130] Similarly, recent trials were more likely to occur before female judges. Other variables—such as the length of time before trial, the length of the trial, and the number of lawyers for the plaintiff or defense—showed no significant change over time.[131]

III. MEDICAL MALPRACTICE VERDICTS

Defendants in medical malpractice cases, like those in product liability suits, fear high verdicts and jury prejudice. The data from Franklin County, however, suggest that neither fear is well founded. As with product liability suits, the number of medical malpractice claims proceeding to trial is small, and defendants win most cases before the jury. High verdicts in this field correspond with serious injuries, admitted liability, or both.

A. *Filings, Trials, and Verdicts*

Ohio does not maintain separate statistics on medical malpractice filings. Since 1990, however, the state has tracked the number of "professional tort" claims filed in the courts of common pleas. These claims include all medical malpractice suits, as well as complaints filed against other professionals (such as attorneys or accountants). As Table III-1 shows, the number of professional tort claims filed in Franklin County between 1990 and 1996 was modest.[132] The total number of annual claims rested at just under 300 per year until 1995 when filings grew moderately. In 1996, the last year before Ohio's tort reform, plaintiffs filed 331 professional tort claims. It is impossible to tell from these figures whether this modest growth occurred in medical malpractice claims, other professional claims, or both categories combined. The annual number of medical malpractice complaints in Franklin County, however, did not exceed 331 when the legislature adopted tort reform.

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[130] *See supra* note 122 and accompanying text. None of the plaintiffs employed a female lawyer at trial during the entire twelve-year period.

[131] We were unable to examine possible changes in the number of expert witnesses for either side because we possessed reliable information on that variable only for the last five years. During those five years, however, there was no significant change in the number of expert witnesses introduced by either side.

[132] Data for this table are drawn from *The Ohio Courts Summary*, published each year by the Supreme Court of the State of Ohio.

Table III-1: Professional Tort Filings by Year in Franklin County, Ohio

Year	Claims Filed, Reactivated, or Transferred	Year	Claims Filed, Reactivated, or Transferred
1990	287	1994	297
1991	290	1995	352
1992	288	1996	331
1993	245		

Only a handful of these claims matured into jury verdicts. Juries decided just 114 medical malpractice cases in Franklin County from January 1985 through December 1996.[133] As Table III-2 shows, the number of verdicts in any one year never exceeded sixteen, with a mean of only 9.5 jury decisions each year.[134]

Plaintiffs, moreover, lost most of these medical malpractice trials. As Table III-2 reports, plaintiffs lost almost seven tenths (69.3%) of the medical malpractice cases they took to court.[135] In all, only thirty-five medical malpractice plaintiffs won jury verdicts in Franklin County during the twelve years before reform. On average, less than three (2.9) malpractice plaintiffs succeeded before a jury each year.

When plaintiffs did prevail, their verdicts covered a wide range of dollar values. Jury verdicts for the thirty-five successful plaintiffs in our population ranged from $2,703 to $12,000,000. Although a few high verdicts dominated the group, many verdicts clustered at the lower end of the scale. Table III-3 displays this distribution. Almost one-third of the awards (31.4%) were for $50,000 or less, while more than half (51.4%) were for less than $200,000. At the other end of the scale, five verdicts (14.3%) were for more than a million dollars, while ten (28.6%) were for $500,000 or more. Medical malpractice claimants, however,

[133] Three lawsuits generated two jury verdicts apiece during this time. In other words, juries resolved only 111 controversies during this twelve-year period although three of the controversies produced two verdicts apiece. We counted each verdict separately for this study because each verdict imposes trial costs on the legal system and provides an opportunity for high verdicts. All six of the verdicts in two-verdict cases, however, favored the defense.

[134] The plaintiff in each of these trials was a single injured individual. Analyses by individual and by case, therefore, do not differ for the verdicts discussed in this section. As noted above, we counted the decedent as the injured individual for wrongful death cases and did not count consortium or subrogation claimants as separately injured individuals (although their recoveries appear as part of the total verdict). *See supra* note 53.

[135] In a few of these cases, plaintiffs recovered some damages by settling with another potential defendant. We identified four such cases in our database. Other settlements may have existed but escaped notation in the court files or case summaries from which we worked.

Table III-2: Medical Malpractice Verdicts by Year in Franklin County, Ohio

Year	Plaintiff Wins	Defendant Wins	Total Verdicts
1985	3	2	5
1986	5	3	8
1987	0	5	5
1988	4	5	9
1989	4	8	12
1990	3	6	9
1991	3	9	12
1992	4	12	16
1993	2	7	9
1994	3	10	13
1995	3	3	6
1996	1	9	10
Total	35	79	114

recovered no punitive damages during the entire twelve years we studied.

The mean jury verdict for successful malpractice plaintiffs ($828,630) was higher than the mean award for successful product liability claimants ($681,522). Somewhat surprisingly, however, the median (middle) award for successful malpractice plaintiffs ($198,000) was *lower* than the median award for product liability plaintiffs who prevailed ($207,560). Again, this reflects the skewed

Table III-3: Verdicts for Successful Medical Malpractice Plaintiffs in Franklin County, Ohio, 1985–1996

Verdict Range	Number of Verdicts	Percentage of Verdicts	Cumulative Percent
$0 - 99,999	11	31.4	31.4
$100,000–199,999	7	20.0	51.4
$200,000–299,999	4	11.5	62.9
$300,000–399,999	2	5.7	68.6
$400,000–499,999	1	2.9	71.4
$500,000–599,999	1	2.9	74.3
$600,000–699,999	0	0.0	74.3
$700,000–799,999	1	2.9	77.1
$800,000–899,999	2	5.8	82.9
$900,000–999,999	1	2.9	85.7
$1,000,000 or more	5	14.3	100.0

nature of malpractice awards with half of all awards concentrated under $200,000, but a few very high awards distorting the mean.

Medical malpractice plaintiffs were less likely than product liability claimants to retain their high jury awards. Trial and appellate judges reduced or overturned six of the jury verdicts for malpractice plaintiffs, including four of the five highest awards.[136] In four other cases, the parties settled the dispute (presumably for less than the jury verdict) pending the defendant's appeal. Therefore, more than one quarter of the successful plaintiffs recovered less than the jury's original award. Table III-4 lists the awards that were reduced or overturned, as well as the amount ultimately collected by the plaintiff when that amount is known.

Table III-4: Post-Verdict Changes in Awards to Medical Malpractice Plaintiffs in Franklin County, Ohio, 1985–1996

Jury Verdict	Post-Verdict Action	Final Award
$12,000,000	Reduced by trial judge	$8,150,000
$3,000,000	Reduced on appeal	$1,500,000
$2,400,000	Settled after reversal	$50,000
$1,200,000	Settled before appeal	$1,025,000
$725,000	Settled before appeal	unknown
$250,000	New trial ordered on appeal	unknown
$200,000	Settled before appeal	unknown
$133,000	Reduced by trial judge	$130,000
$100,000	Settled before appeal	unknown
$43,350	New trial ordered on appeal	unknown

Plaintiffs, too, sometimes succeeded in obtaining a new trial or settlement when they had lost before the jury. Four plaintiffs won new trials on post-verdict motions or appeals. Four others secured a settlement from the defendant after a defense verdict. Only one of those settlement amounts—for $2,000—was available to us.

Overall, however, post-verdict activity benefited defendants rather than plaintiffs. The average amount recovered by successful plaintiffs dropped by almost one-quarter, from $828,630 to $638,959, after accounting for post-verdict changes.[137] Similarly, the median recovery dropped from $198,000 at the time of

[136] Other researchers have observed a similar pattern in medical malpractice cases. *See, e.g.*, Thomas B. Metzloff, *Researching Litigation: The Medical Malpractice Example*, 51 LAW & CONTEMP. PROBS., Autumn 1988, at 199, 237.

[137] In calculating the mean and median post-verdict recoveries for successful plaintiffs,

verdict to $150,000 after post-verdict motions and appeals. This drop, again, represents almost a one-quarter reduction in awards to plaintiffs. Thus, we obtained substantial evidence that medical malpractice plaintiffs collect considerably smaller awards than those originally awarded by juries.

Despite this discrepancy, we continue to focus on jury verdicts throughout most of this Article. Tort reformers usually focus on those verdicts as presenting unfair threats to doctors, hospitals, and other defendants. The reductions discussed above suggest that trial and appellate judges already possess considerable power to reduce any unfair awards. By focusing on jury verdicts themselves, however, we examine the strongest evidence of any tort crisis.

B. *Plaintiffs and Defendants*

All of the medical malpractice plaintiffs who proceeded to trial were individuals or estates representing deceased individuals.[138] As with product liability suits, we noticed some gender differences among these injured parties. Women predominated among plaintiffs at trial (60.2%) and represented an even higher percentage of winning plaintiffs (67.4%).[139] The latter difference, however, was too small to be statistically significant. Similarly, when we controlled for other factors through regression analysis (see Table III-5), plaintiff's gender was not significantly associated with the likelihood of recovering at trial.[140]

Female plaintiffs who prevailed at trial appeared to recover larger verdicts than did male plaintiffs. The mean award for successful female plaintiffs was $1,071,052, while the mean award for men was just $449,744. In bivariate analysis, this difference was not statistically significant. When we controlled other factors in a tobit analysis, however, the difference achieved significance.[141] As Table III-6 suggests, successful female plaintiffs recovered significantly higher verdicts than did successful male plaintiffs—even after controlling for injury severity, type of malpractice, and a number of other factors.[142]

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we eliminated cases in which the plaintiff's eventual recovery was unknown.

[138] In one suit, the State of Ohio Department of Human Services joined the plaintiff in a subrogration claim for medical services. We, however, coded information about the individual as the primary plaintiff in this lawsuit.

[139] We lacked information about the gender of one plaintiff; that plaintiff is omitted from these comparisons.

[140] For an explanation of this multivariate analysis, see *supra* notes 64–65 and accompanying text.

[141] For a discussion of this technique, see *supra* note 66 and accompanying text.

[142] Our analysis was unable to control for some factors that might affect verdict size; in that sense, our findings are tentative. At least one other study, however, has identified a similar relationship between gender and verdict size. *See* David W. Leebron, *Final Moments:*

Medical malpractice plaintiffs were as likely as product liability plaintiffs to be minors. About one-fifth of the malpractice plaintiffs (22.1%) were minors, compared to 23.8% of product liability plaintiffs.[143] Malpractice plaintiffs, however, were more likely than product liability plaintiffs to be older than sixty-four. About one out of every seven malpractice plaintiffs (14.7%) fell into the sixty-four and older category, while none of the product liability plaintiffs did.[144] Despite this difference, the mean age of medical malpractice plaintiffs was virtually identical to that of product liability plaintiffs—37.5 years.[145]

We found tentative indications that minors, and perhaps seniors, were more likely to win their malpractice claims than were adults aged between those two groups. In bivariate analyses, both minors and seniors showed substantially higher win rates than did plaintiffs falling between those two groups. About half of both minors (46.7%) and seniors (50.0%) won a jury verdict, while only one-quarter (27.9%) of plaintiffs aged between those two groups were successful. In part because of our small sample size, these differences were not statistically significant. After controlling for other factors through regression analysis, the relationship between senior status and recovery remained weak; the coefficient was positive but did not even approach significance (see Table III-5). The relationship between minor plaintiffs and a successful claim, on the other hand, was both positive and approached significance at the conventional level (p=.059). It is possible, therefore, that minor plaintiffs enjoy more success than adult ones after controlling for other factors.[146]

Damages for Pain and Suffering Prior to Death, 64 N.Y.U. L. REV. 256, 306 n.202 (1990).

Some other studies of damage awards have concluded that men obtain higher awards than women do. *See, e.g.*, Chamallas, *supra* note 61, at 465 (summarizing studies). Some of those studies used data from jury verdict reporters rather than complete verdict sets; further, most were unable to control for many variables. On the other hand, most of those studies examined the tort system as a whole, rather than the subset of medical malpractice cases. Our findings, therefore, might be consistent with those other studies—if malpractice cases differ from other tort claims in this respect. The possibility of gender differences in tort awards—together with differences based on race, ethnicity, age, social class, and other factors—merits further study.

[143] We knew the plaintiff's age for close to two-thirds (59.6%) of the malpractice claimants. The age-based comparisons in this section draw upon just those cases.

[144] This difference approached significance at the conventional level (p=.057).

[145] The average age of product liability plaintiffs was 37.2 years. *See supra* text accompanying note 80.

[146] This does not mean, of course, that juries discriminate in favor of minor plaintiffs. It is also possible that defendants disproportionately resist settlement with minors, leaving the stronger claims by minors to reach the jury. If that were true, then juries would respond rationally to the stronger claims by resolving more lawsuits in favor of minors.

Table III-5: Logistic Regression for Plaintiff Victory in Medical Malpractice Jury Trials in Franklin County, Ohio, 1985–1996

Variable	Logistic Regression Coefficient	Significance
Admission of Liability	16.499**	.003
Child Plaintiff	1.560*	.059
Death of Plaintiff	1.909*	.096
Diagnosis Allegation	0.804	.265
Female Defendant	-0.935	.373
Female Judge	-0.709	.468
Female Lawyer for Defendant	-2.645**	.041
Female Lawyer for Plaintiff	1.836*	.085
Female Plaintiff	0.551	.405
Informed Consent Allegation	-10.383	.976
Injury Severity	-0.316*	.094
Institutional Defendant Only	0.418	.698
Month of Verdict	-0.246**	.013
Non-M.D. Defendant	1.660**	.050
Nonmedical Error Allegation	12.229	.971
Number of Lawyers for Defendant	0.417	.388
Number of Lawyers for Plaintiff	-0.694	.990
Plaintiff Fault	2.039	.196
Pre-Trial Period	-0.282	.128
Prior Trial	-12.484**	.034
Senior (Over 64) Plaintiff	1.061	.306
Trial Length	0.322**	.024
Y-Intercept	-1.288	.464
Nagelkerke R^2	.557**	.000
N	114	

** Significant at .05 or less

* Approaches significance at .10 or less

Table III-6: Tobit Analysis on Verdict Size in Medical Malpractice Jury Trials in Franklin County, Ohio, 1985–1996

Variable	Tobit Coefficient	Significance
Admission of Liability	218.73**	.041
Child Plaintiff	39.050	.524
Death of Plaintiff	22.191	.789
Diagnosis Allegation	58.525	.319
Female Defendant	25.226	.741
Female Judge	8.5301	.910
Female Lawyer for Defendant	-199.87**	.016
Female Lawyer for Plaintiff	11.755	.894
Female Plaintiff	101.16**	.042
Informed Consent Allegation	-484.27	.970
Injury Severity	2.7550	.830
Institutional Defendant Only	128.42	.135
Month of Verdict	-1.9890**	.008
Non-M.D. Defendant	63.648	.332
Nonmedical Error Allegation	-93.466	.357
Number of Lawyers for Defendant	-12.985	.708
Number of Lawyers for Plaintiff	47.024	.215
Plaintiff Fault	11.692	.919
Pre-Trial Period	-4.4106**	.006
Prior Trial	-666.94	.938
Senior (Over 64) Plaintiff	40.737	.614
Y-Intercept	157.08**	.000
N	114	

** Significant at .05 or less
* Approaches significance at .10 or less

We also noticed interesting differences in verdict amounts based on age. Successful plaintiffs between the ages of eighteen and sixty-five recovered, on average, $1,722,003. Plaintiffs sixty-five and older recovered considerably less on average ($306,000), while minors obtained the lowest average awards ($145,965). Given the small number of recoveries, these differences did not achieve statistical significance. They fit, however, with the legal rules governing damages. Adult plaintiffs under the age of sixty-five usually are gainfully employed and have long life expectancies. Damages for this group predictably are higher than for older plaintiffs, who often have retired and enjoy shorter life

expectancies. Damages for all adults might also exceed those for minors because minor's damages are notoriously difficult to estimate.

When we subjected verdict amounts for successful plaintiffs to multivariate analysis, none of the age categories achieved statistical significance. Thus, after controlling for severity of the injury and other factors, we found no evidence that the size of jury awards varied by age category. It is possible that significant relationships, consistent with the bivariate ones identified above, would emerge from analysis of a larger database. It is also possible that juries actually *under*compensate adults under sixty-five after controlling for factors like injury severity.

Turning our attention to malpractice defendants—these parties included institutions, doctors, and health care workers without M.D. degrees—twenty-one of the trials (18.4%) included only an institution (such as a hospital or health care plan) as a defendant.[147] Fourteen other trials (12.3%) involved individual defendants, but no defendant with an M.D. degree. Defendants in the latter cases included nurses, dentists, osteopaths, and other health care professionals. The bulk of the cases (69.3%) included at least one M.D. as a defendant.

In initial bivariate analyses, plaintiffs who tried claims against purely institutional defendants appeared significantly more likely to win those claims than were plaintiffs who pursued a claim against at least one M.D.[148] Plaintiffs in the first group won 57.1% of their trials. When an M.D. appeared at the defense table, the recovery rate plummeted to 21.5% (p=.003). When we controlled for a variety of other factors through logistic regression, however, this relationship disappeared (see Table III-5). The apparent bias against institutional defendants was due to other factors. In particular, two of the three defendants who admitted liability were institutional defendants. This happenstance strongly influenced the bivariate relationship.

Multivariate analyses, on the other hand, suggested that plaintiffs who sued health care workers without M.D. degrees were more likely to recover, on average, than were plaintiffs who sued at least one M.D. This difference did not achieve statistical significance in our bivariate analysis,[149] but it achieved significance after controlling for other factors. As Table III-5 reveals, plaintiffs who sued health care workers other than medical doctors were significantly more

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[147] In some of these cases, the plaintiff originally sued an individual defendant as well, but the individual settled prior to trial.

[148] A one-way analysis of variance established significant differences in recovery rates among the three categories of defendants. F(2, 111)=5.93, p=.004. Post-hoc analyses established that the difference between institutional defendants and M.D.s was significant, while the other differences were not.

[149] Plaintiffs won 42.9% of their claims against health care workers other than M.D.s, compared to 21.5% of claims against M.D.s (p=.102).

likely to win jury verdicts—even after controlling for the severity of the injury and other factors. Contrary to the fears of some doctors, therefore, medical doctors appear *less* vulnerable to jury verdicts than are other health care professionals accused of similar types of malpractice.

When we examined verdict size for successful plaintiffs, we found no significant relationship between that size and the defendant's status. Verdicts against M.D.s were similar to those against other health care workers.[150] The small difference was not significant either in bivariate or multivariate analyses. Verdicts against institutional defendants were larger, on average, than those against either individual doctors or other health care workers. Once again, however, this difference was not significant either in bivariate or multivariate analyses.[151] Thus, we found no evidence that juries allowed the defendant's status, rather than the plaintiff's injuries, to dictate the size of awards.

Finally, we examined whether the presence of a female defendant affected either plaintiff recovery rates or verdict size. After excluding trials against purely institutional defendants, 14.0% of the defense groups included at least one woman. Groups that included a female defendant appeared slightly more likely to lose at trial than were groups composed exclusively of male defendants. Just under one-third (30.8%) of defendants that included at least one woman lost at trial, while less than one-quarter (23.8%) of all-male defendants lost at trial. This difference, however, was not statistically significant and was due in part to other factors (such as the overrepresentation of female defendants among health care workers other than medical doctors). When we controlled for those factors through regression analysis, we found no significant relationship between the likelihood of a plaintiff's recovery and the presence of a female defendant (see Table III-5).

Similarly, although the average verdict against defendant groups that included at least one woman was higher than the average verdict against all-male defendant groups, the difference was not significant. Nor did we detect any significant relationship between the defendant's gender and verdict size when we controlled for other factors through multivariate analysis (see Table III-6). The plaintiff's gender, therefore, appears to have some association with verdict size but the defendant's gender shows no significant relationship to either recovery rates or verdict amounts.

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[150] The average verdict for plaintiffs who recovered against at least one M.D. was $470,045, while the mean verdict against other health care workers was $434,058. Both averages exclude cases in which the defendant prevailed.

[151] The average verdict for plaintiffs who successfully sued institutional defendants was $1,533,913. A one-way analysis of variance for the three categories of defendants was not significant, $F(2, 32)=1.02$, $p=.372$; nor was a comparison of the mean verdict for institutions to a mean verdict for individuals ($p=.156$). As Table III-6 shows, the coefficients for institutional defendants and non-M.D. defendants were not significant in multivariate analysis.

C. *Fault and Injury*

Defendants admitted liability in three of the cases they tried, losing all three of those cases. As a result, the defendant had conceded liability in almost one-tenth (8.6%) of the malpractice cases plaintiffs won. These cases included the lawsuit with the second highest jury verdict. In a fourth case, which also produced a substantial verdict, a chief of surgery and obstetrician agreed that some malpractice had occurred but pointed the finger at one another.

Conversely, juries found plaintiffs at fault in at least three of the cases we studied.[152] One of these plaintiffs lost as a result of the fault, while the other two recovered reduced verdicts. The verdicts in the latter cases were quite small, including both the smallest verdict among malpractice recoveries ($2,703) and another small award ($43,350).

A defendant's admission of fault was a significant factor in predicting both plaintiff recovery and the amount of the verdict. As Table III-5 shows, defendants who admitted liability were significantly more likely to lose at trial even after controlling for other factors.[153] Interestingly, these defendants also suffered significantly higher verdicts (see Table III-6).[154] The latter relationship occurred even after controlling for the severity of the plaintiff's injury. It is possible, therefore, that juries penalize defendants for their fault admissions by assessing especially high verdicts. On the other hand, it is possible that plaintiffs pressed these cases to trial, despite the defendant's admission of liability, precisely because potential damages were so high. Selection of cases for trial, in other words, might cause some of the detected effect.

Plaintiff fault did not play a significant role in recovery rates once we controlled for other factors. The absence of a significant relationship between these variables may be partly due to the large number of cases that plaintiffs lost even without any finding of fault on their part. Ironically, the lack of any apparent relationship may also stem from the fact that plaintiff fault was noted most often in the case summaries when plaintiffs won a discounted recovery despite that fault; when plaintiff fault contributed to a defense verdict, the loss alone may have been noted. It is also quite likely that plaintiff fault plays a smaller role in medical malpractice cases—in which the professional controls

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[152] It is possible that juries found plaintiffs at fault in additional cases in which they returned either a defense verdict or a low recovery for the plaintiff. The trial summaries we consulted, however, included only three explicit references to plaintiff fault.

[153] Bivariate analyses produced the same result. All (100.0%) of the defendants who admitted fault lost at trial, while only 28.8% of other defendants suffered an adverse jury verdict ($p=.027$).

[154] Bivariate analysis similarly revealed a higher verdict for defendants who conceded fault ($1,218,733) than for other defendants ($792,058), but the difference was not statistically significant ($p=.743$).

most of the decisionmaking—than in other types of tort suits.

In addition to noting these admissions of defendant liability and findings of plaintiff fault, we divided the plaintiffs' allegations of error into four categories. In three cases (2.6%), plaintiffs exclusively alleged a violation of their informed consent. In five other cases (4.4%), plaintiffs claimed a nonmedical error such as dropping the patient while transferring her from a gurney to the operating table. In another quarter of the cases (23.7%), the plaintiff alleged that the defendant failed to diagnose the plaintiff's ailment correctly. In the remaining two-thirds of the cases (69.3%), the plaintiff alleged a medical error such as prescribing the wrong course of treatment or performing surgery incorrectly.[155]

The type of alleged negligence had little impact on the likelihood of a plaintiff's recovery. In bivariate analysis, plaintiffs who alleged nonmedical negligence (such as allowing a plaintiff to fall off a gurney) appeared significantly more likely than other plaintiffs to recover.[156] This relationship, however, disappeared after we controlled for other factors in our multivariate analysis (see Table III-5). Plaintiffs, for example, admitted liability in response to one-fifth (20.0%) of the claims of nonmedical error but to only 1.8% of other malpractice allegations. Other categories of alleged fault showed no significant relationship with plaintiff recovery rates either in bivariate or multivariate analysis.[157]

Nor was the type of alleged negligence associated with verdict amounts for successful plaintiffs. Plaintiffs who proved errors in diagnosis may have recovered somewhat lower verdicts, on average ($648,445), than did plaintiffs proving either errors in medical treatment ($875,554) or nonmedical negligence ($910,503). However, these differences were not significant.[158] Nor were any of

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[155] For further discussion of these categories, see *supra* note 57 and accompanying text. Whenever a plaintiff alleged both medical error and one of the other types of carelessness, we categorized the allegation as one of medical error. The other three categories, in other words, represent cases in which the plaintiff claimed *only* a violation of informed consent, nonmedical error, or negligent failure to diagnose.

[156] A one-way analysis of variance first indicated that the likelihood of recovery varied significantly among the four categories of claims, $F(3, 110)=4.69$, $p=.004$. Subsequent analysis revealed that recovery rates among plaintiffs alleging medical or diagnostic error were quite similar. About one quarter (27.8%) of the former plaintiffs recovered, while a similar percentage (29.6%) of the latter claimants succeeded at trial. In contrast, all five of the plaintiffs (100%) who alleged a nonmedical error prevailed at trial, and none of the three plaintiffs (0%) who exclusively alleged consent violations succeeded. The difference between the former percentage and all other plaintiffs was significant ($p=.002$) although the latter was not ($p=.329$).

[157] It is noteworthy that all three of the plaintiffs who exclusively alleged a violation of their informed consent lost at trial. It would be useful to examine this possible relationship in a larger database.

[158] A one-way analysis of variance, using the four categories of alleged negligence as the independent variable, showed no significant difference in verdict amounts. $F(2, 32)=.036$,

the negligence categories significant in our multivariate analysis of recovery amount (see Table III-6).

Injuries in medical malpractice cases, like those in product liability suits, spanned a wide spectrum. Almost one-third (28.6%) of the malpractice plaintiffs died from their injuries.[159] Another quarter (27.7%) suffered a temporary, but major, injury (*e.g.*, one requiring surgery). The next largest cluster (14.3%) suffered a permanent significant loss (*e.g.*, the loss of one limb or permanent deafness). More than half the medical malpractice plaintiffs (51.8%) suffered this type of permanent significant loss or worse.[160] Only one plaintiff (0.9%) claimed no physical injury from the alleged malpractice,[161] while just one other (0.9%) alleged a temporary soft tissue injury as the only damage.

Overall, personal injuries in medical malpractice cases were more severe than those in product liability cases. The mean injury for a medical malpractice plaintiff was 7.5 (halfway between a permanent significant and permanent major injury), while the median injury was 8.0 (a permanent major injury). The mean injury for product liability plaintiffs was 5.5, ranking between permanent soft tissue and permanent minor injury. The median for product liability plaintiffs was just 5.0, the equivalent of a permanent soft tissue injury.[162]

The severity of the plaintiff's injury showed a complicated relationship with the plaintiff's likelihood of recovering. On one hand, when we included all types of bodily injury in a single scale with death as the most severe injury, we found no significant difference in mean injury level between plaintiffs who won their malpractice claims and those who lost their claims. Plaintiffs in the first group had an average injury level of 7.6, while those in the latter group had a similar average of 7.5 (p=.744). Similarly, we found no significant difference in recovery rates between plaintiffs who died and those who survived; only one-third (33.3%) of the former group prevailed, but 29.8% of the latter group prevailed as well (p=.818).

When we applied multivariate analysis, however, we found that both death

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p=.965.

[159] Percentages for injury categories exclude two cases for which we lacked sufficient information to rate the injury.

[160] In addition to the 14.3% who suffered a permanent significant loss, and the 28.6% who died from their injuries, 6.3% of the medical malpractice plaintiffs suffered a permanent major loss (such as paraplegia or blindness), while 2.7% suffered a permanent grave injury (such as quadriplegia, severe brain damage, vegetative state).

[161] This plaintiff claimed that his wife had been artificially inseminated without his consent and with sperm from another donor. The couple later divorced and the plaintiff claimed emotional distress, child support, and insurance expenses as his damages.

[162] Product liability plaintiffs, however, were more likely to suffer substantial property damage, especially business-related damage. It is difficult to rank the latter type of injury as compared to bodily harm.

and the degree of injury (short of death) showed a possible relationship with the plaintiff's likelihood of recovering. As Table III-5 reveals, plaintiffs who died from their injuries may have been more likely than other plaintiffs to prevail in their malpractice suits—although this relationship merely approached significance at the conventional level (p=.096). On the other hand, once we excluded death cases, plaintiffs with more serious injuries may have been *less* likely to recover.[163] The coefficient for degree of injury is negative in Table III-5 although it too merely approaches significance at the conventional level (p=.094).

This pattern suggests that juries respond most favorably to both wrongful death plaintiffs and plaintiffs who suffer serious but temporary injuries. Further, jurors seem least likely to compensate malpractice plaintiffs who have suffered devastating permanent injuries such as blindness or paraplegia. The pattern is particularly striking because it is similar to the one we observed in product liability cases.[164] In both of these trial categories, plaintiffs with catastrophic injuries short of death seemed least likely to recover. As discussed above, this effect might derive from a psychological defense that discourages jurors from identifying with plaintiffs who have been very badly injured.[165] Alternatively, the pattern could derive from settlement behavior. Defendants may be most likely to settle meritorious claims involving devastating permanent injuries—precisely because the damages in those cases are so high. That tendency would leave only relatively weak claims in this category for resolution at trial. Plaintiffs may be correspondingly likely to press these weak claims to trial because the pay-off, if they do succeed, will be so high.

When we limited our analysis to successful plaintiffs, injury severity showed a strong bivariate correlation with verdict size. This was especially true when we excluded wrongful death cases from the analysis. When we included death as the highest rung on our severity scale, the injury rating correlated positively with the amount of a successful plaintiff's recovery (r=.305), but the result merely approached significance at the conventional level (p=.080). When we eliminated death cases from our analysis, the correlation between injury severity and award size for successful plaintiffs jumped to .551 and became highly significant (p=.005).

These results suggest that, while verdict size relates closely to severity of the

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[163] By including both a continuous variable ranking degree of injury and a dichotomous variable denoting death in our multivariate analysis, we were able to measure the relationship between recovery rates and degree of injury after controlling for (or eliminating from that variable) death cases. We employed the same approach in analyzing verdict size through multivariate techniques.

[164] *See supra* notes 86–87 and accompanying text.

[165] *See supra* note 87.

injury, juries tend to compensate wrongful death claimants somewhat less than they compensate the most seriously injured plaintiffs who survive. We confirmed the latter by comparing average verdicts for wrongful death plaintiffs with those for plaintiffs who survived. Claimants who died from medical malpractice but prevailed before a jury recovered, on average, $790,003. Successful plaintiffs who suffered serious permanent injuries (but not death), on the other hand, recovered a mean award of $2,276,698—almost three times higher.[166] This difference was not statistically significant (p=.281), but does suggest that death claimants obtain low verdicts compared to other seriously injured malpractice victims.[167]

Once again, this difference may derive from the nature of cases brought to trial. Wrongful death plaintiffs who come to trial may, for some reason, have lower economic damages than death plaintiffs who are able to settle. Alternatively, the difference may reflect undercompensation of wrongful death claimants in malpractice cases, or it may reflect the unfortunate reality that ongoing treatment of a seriously injured patient (such as a quadriplegic or comatose victim) is extraordinarily expensive—even more expensive than the highest value juries are willing to set on a lost life.

Curiously, when we subjected verdict size for successful plaintiffs to multivariate analysis, neither the severity of the plaintiff's injury nor the fact of death correlated significantly with verdict size. Coefficients for both of these independent variables were positive, but far from significant (see Table III-6). It is impossible to know whether analyses of a larger population would uncover significant relationships or whether these factors lack significance once other variables have been controlled.

Notably, however, we found that the bivariate correlation between severity of the plaintiff's injury and verdict size was even higher when we analyzed awards that had been adjusted by trial or appellate judges rather than raw jury verdicts. When we excluded death cases, the former correlation reached .648 and was highly significant (p=.001). This suggests that trial judges and appellate courts reduced jury awards in part to conform them more closely to the severity of the plaintiff's injury.

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[166] Indeed, wrongful death plaintiffs recovered less, on average, than the mean award for all other plaintiffs, including those who suffered only temporary injuries. The average award for plaintiffs who survived medical malpractice and recovered some jury award was $844,081. Like the difference reported in the text, the difference between this average and that for wrongful death plaintiffs was not statistically significant.

[167] *See also* Randall R. Bovbjerg et al., *Juries and Justice: Are Malpractice and Other Personal Injuries Created Equal?*, 54 LAW & CONTEMP. PROBS. 5, 19 (1991) (demonstrating that awards for wrongful death plaintiffs in medical malpractice cases were higher than for plaintiffs who suffered minor injuries but lower than for plaintiffs who suffered the most serious non-death injuries).

D. *Conduct of Litigation*

On average, medical malpractice claims came to trial after 32.2 months. The median time to trial was four months lower, or 28.5 months. Both of these figures were slightly lower than in product liability cases, but the difference in means was not statistically significant.[168]

The average pre-trial periods for malpractice suits, like those for product liability claims, included a few cases in which a claim was retried after a successful appeal or post-verdict motion. Eight (7.0%) of the malpractice claims in our population fit that description. When we excluded those eight cases, the average time to trial in malpractice cases fell to 30.3 months, while the median declined to 28.0 months.

Retried cases were significantly less likely than other malpractice claims to succeed before the jury. Plaintiffs failed in all eight of these retried cases—a significantly higher failure rate than for first-time malpractice trials (p=.047). Even after we controlled for other variables (see Table III-5), plaintiffs who pursued a second malpractice trial were significantly less likely to prevail than other malpractice plaintiffs.

At trial, malpractice claims consumed about the same number of days as did product liability claims. Medical malpractice trials ranged from one to sixteen days in length, with a mean of 5.6 and a median (middle value) of 5.0.[169] Interestingly, claims that generated longer trials were significantly more likely to succeed than other claims. The mean trial length for a successful claim was 6.2 days, while that for an unsuccessful claim was 5.3 days. Although this difference merely approached significance (p=.097) in a bivariate comparison, it achieved significance once we controlled for other factors through logistic regression. As Table III-5 reveals, trial length was one of the factors that corresponded significantly with a judgment for the plaintiff in medical malpractice cases.

This positive relationship could stem from the plaintiff's behavior, the defendant's behavior, or a combination of both. Perhaps the simplest explanation is that plaintiffs who devote more time to establishing liability at trial are more likely to succeed. Alternatively, plaintiffs may correctly estimate their likelihood of success and, if they perceive a strong chance of winning, may devote more time than other plaintiffs to detailing damages. On the other hand, defendants

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[168] Medical malpractice cases in Franklin County came to trial somewhat faster than malpractice trials in other large counties nationwide. In a study of state courts in the nation's seventy-five largest counties, the Department of Justice found that medical malpractice claims averaged 38.8 months from complaint to trial, while the median was 33.6 months. *See* DEFRANCES, *supra* note 7, at 10.

[169] Product liability trials consumed, on average, 5.7 days. The difference between this mean and that for malpractice trials was not statistically significant.

who perceive a strong case for the plaintiff may expend more time on their defense, hoping to persuade the jury of a weakness in the plaintiff's case. Any of these explanations would establish a rational relationship between trial length and plaintiff success.[170]

The number of lawyers and expert witnesses involved in the average malpractice trial was surprisingly low. Indeed, malpractice defendants employed fewer lawyers on average than did product liability defendants. The mean number of defense lawyers in a medical malpractice trial was just 1.6—and even that figure was somewhat distorted by a single trial with seven defense lawyers.[171] More than half of all medical malpractice claims (54.4%) went to trial with just one defense lawyer.

Malpractice defendants also employed relatively few expert witnesses. One-third of defendants (33.3%) introduced no expert witnesses, while another third (33.2%) relied upon just one.[172] No defendant employed more than four experts, with an overall mean of 1.2. This mean did not differ significantly from the mean number of experts introduced by defendants in product liability suits (1.0, p=.601). Nor did the number of defense experts in each malpractice trial correlate significantly with the number of defense lawyers associated with that trial. Defendants, therefore, were selective in whether they chose to employ additional experts or lawyers for a particular trial.

Malpractice plaintiffs also staffed their cases in a lean manner. Plaintiffs averaged just 1.3 lawyers in medical malpractice cases, with more than two thirds (70.2%) of all medical malpractice plaintiffs going to trial with just one lawyer.[173] Almost one-third of malpractice plaintiffs (27.8%) introduced no expert witnesses,[174] while another two-fifths (40.7%) relied upon just one expert. In all, more than two-thirds of all malpractice cases (68.5%) proceeded to trial with zero or one expert witness for the plaintiff; the mean number of experts for

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[170] Trial length seemed less clearly related to the size of a successful plaintiff's verdict. In bivariate analysis, trial length did correlate positively with verdict size (r=.250), but the result was not statistically significant. Unfortunately, we could not include trial length in our multivariate analysis of verdict size because we were missing some values for this variable and the missing values significantly affected the equation.

[171] In contrast, product liability defendants employed an average of 2.0 lawyers at trial. The difference between these means was statistically significant (p=.015).

[172] As noted above, we have reliable data on expert witnesses only for trials occurring after 1991. We limit analyses of expert witnesses to the fifty-four medical malpractice verdicts rendered after that year.

[173] This mean was quite similar to the average number of plaintiff's lawyers (1.4) in product liability cases. The difference was not statistically significant.

[174] Some of these plaintiffs may have relied upon witnesses characterized as "fact" witnesses (such as a doctor who provided follow-up care) to offer evidence on the standard of care.

plaintiffs was just 1.3.[175]

The number of plaintiff's experts did not correlate significantly with the number of plaintiff's lawyers. Like defendants, therefore, plaintiffs chose to allocate additional legal resources in some trials and additional expert witnesses in others. Interestingly, the number of experts for the defense correlated highly with the number of experts for the plaintiff ($r=.514$, $p=.000$), while the number of plaintiff's lawyers correlated significantly with the number of defendant's lawyers ($r=.242$, $p=.009$). Plaintiffs and defendants, therefore, either made similar decisions about which trials merited extra legal resources and which ones deserved additional expert witnesses—or they responded to one another's lead on these matters.

The type of negligence alleged by the plaintiff showed no significant association with the number of experts employed by either the plaintiff or defendant (for example, cases involving a failure to diagnose did not elicit significantly more or less experts than cases alleging erroneous treatment).[176]

The severity of the plaintiff's injury, on the other hand, did relate significantly to the number of experts for both plaintiffs and defendants.[177] That relationship, however, was not a simple linear one. Instead, both sides employed relatively few experts for both cases involving temporary minor damages and those producing death. Plaintiffs averaged only 0.5 experts in the first type of case and 0.8 experts in the second. Defendants, similarly, averaged 0.2 experts in lawsuits claiming the most minor injuries and 0.8 in those alleging death.

Both plaintiffs and defendants invested more heavily in experts for cases claiming permanent major injuries. Plaintiffs averaged 2.4 expert witnesses in these cases, while defendants averaged 1.9. The relatively large number of witnesses in these cases may have stemmed from both the high damages at stake in these lawsuits and the difficulty of calculating those on-going damages. It is noteworthy that both plaintiffs and defendants made similar decisions in staffing these cases.[178]

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[175] This average was lower than the mean number of plaintiff's experts in product liability cases (2.0), but the difference did not achieve statistical significance ($p=.129$).

[176] During the five years for which we possessed reliable data on expert witnesses, plaintiffs did not bring any claims involving nonmedical negligence to trial. Therefore, we could not test whether these cases used significantly fewer expert witnesses.

[177] A one-way analysis of variance, using five injury categories that combined several of the ratings on our twelve-point scale, was significant for both the number of plaintiff's experts ($F(4, 48)=4.05$, $p=.007$) and number of defendant's experts ($F(4, 48)=3.33$, $p=.017$). The five injury categories used in this analysis were temporary minor injuries (1–4 on our injury rating scale); temporary major injuries (5 on the injury rating scale); permanent minor injuries (6–7 on the injury rating scale); major permanent injuries (8–10 on the scale); and death.

[178] Cases involving temporary major injuries or permanent minor injuries fell between the extremes discussed in the text. In both of these categories, plaintiffs and defendants each

The number of lawyers employed by plaintiffs and defendants similarly showed a strong relationship to the severity of the plaintiff's injury.[179] On this measure, however, the two sides deployed their forces in slightly different patterns. For defendants, the relationship between number of lawyers and injury severity was linear: they employed the most lawyers when the plaintiff had died (1.9) and almost as many lawyers when the plaintiff survived but suffered a serious, permanent injury (1.8). For other claims, those involving less devastating injuries, defendants averaged only 1.4 lawyers. The latter mean was significantly lower than either of the other two.

Plaintiffs, on the other hand, devoted the most lawyers to cases involving serious, permanent injuries rather than to wrongful death cases. Plaintiffs averaged 1.5 lawyers in the former cases and 1.4 lawyers in the latter. For claims involving less serious injuries, they employed only 1.2 lawyers on average—significantly less than for claims involving serious, permanent injuries but not significantly different than the average for wrongful death cases.

The tendency for plaintiffs to devote the most lawyers to cases involving serious, permanent injuries, rather than wrongful death, may reflect simple economics. The former cases produce the highest verdicts,[180] and plaintiffs pay their lawyers on a contingency basis. Claims of serious, permanent injury, therefore, may be able to support more lawyers at trial than claims for wrongful death. It is also possible that the former group of cases is more difficult to litigate because they involve more complicated issues of damages or causation. If the latter were true, however, we might expect to see defendants deploying their lawyers in the same manner. Instead, defendants employed even more lawyers for wrongful death cases than for ones involving serious permanent injuries.

In addition to the differential allocation of lawyers and witnesses by injury severity, it is noteworthy that plaintiffs employed more expert witnesses than defendants in every category, while defendants used more lawyers than plaintiffs in each category. The pattern is analogous to one we observed in product liability cases and, once again, might suggest that plaintiffs attempt to win their cases on the facts, while defendants try to prevail on the law.[181] As noted above, however, the difference is more likely to stem from the economic and legal position of the parties. Plaintiffs must introduce expert witnesses in medical malpractice cases

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supplied an average of one expert witness.

[179] For the plaintiffs, the correlation was .201 (p=.034). For the defendants, it was .299 (p=.001). Conversely, neither the type of alleged negligence nor the status of the defendant showed a significant relationship with the number of lawyers employed by either the plaintiffs or the defendants. One-way analyses of variance were not significant for any of these relationships.

[180] *See supra* note 166 and accompanying text.

[181] In product liability cases, we noted that the number of plaintiffs' expert witnesses correlated with the number of defendant's lawyers. *See supra* note 102 and accompanying text.

because the law requires them to do so in order to establish lack of care.[182] Defendants are not compelled to introduce expert witnesses, although they may choose to do so. At the same time, plaintiffs may lack sufficient resources to employ as many lawyers as defendants do. This is particularly true given the contingent fees charged by most plaintiffs' lawyers and the relatively low rate of recovery in malpractice trials.

When we examined the relationship among witnesses, lawyers, and pre-trial delay, we found evidence that the defendant's preparations, rather than the plaintiff's, determined the length of time between filing a complaint and trial. Neither the number of plaintiff's lawyers nor the number of expert witnesses for the plaintiff correlated significantly with the number of months between complaint and trial.[183] On the other hand, both the number of defense lawyers and the number of defense witnesses showed a positive correlation with length of time to trial.[184] The extent of the defendant's preparations, rather than the plaintiff's pre-trial work, thus appears to determine the trial date.[185]

Lengthy pre-trial preparations appear to pay off for defendants. Our multivariate analysis revealed that longer pre-trial periods were associated with significantly lower verdicts for plaintiffs (see Table III-6). Thus, defendants' pre-trial preparations may both determine the time of trial and, when those preparations are extensive, may reduce the verdicts assessed against the defense.

On the other hand, neither the number of lawyers nor number of expert witnesses for each side affected case outcomes after controlling for other variables. In bivariate analyses, a higher number of plaintiff's lawyers was associated with a significantly higher verdict for successful plaintiffs.[186] This relationship, however, disappeared once we controlled for other variables (see Table III-6). The number of defense lawyers was not significantly related to case outcomes in either bivariate or multivariate analyses (see Tables III-5 and III-6). Nor did the number of experts for either side appear to affect either the plaintiff's

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[182] *See* Bruni v. Tatsumi, 346 N.E.2d 673, 676–77 (Ohio 1976); Morris v. Children's Hosp. Med. Ctr., 597 N.E.2d 1110, 1114 (Ohio Ct. App. 1991). *See generally* W. PAGE KEETON ET AL., PROSSER AND KEETON ON THE LAW OF TORTS 188–89 (5th ed. 1984).

[183] For the number of plaintiff's lawyers, $r = -.026$ ($p=.791$); for the number of plaintiff's experts, $r = -.004$ ($p=.971$).

[184] The first of these relationships approached significance, $r = .164$ ($p=.086$), while the second achieved significance, $r = .257$ ($p=.025$).

[185] This does not necessarily mean that defendants spend longer than plaintiffs do on their pre-trial preparations. It is possible that defendants do not begin trial preparation until after a complaint is filed, while plaintiffs complete at least some of their pre-trial work before filing a complaint. Many malpractice defendants, however, do know of potential claims before a formal complaint is filed. Indeed, institutional review boards and other forms of peer review may alert defendants to potential claims even before plaintiffs consider initiating a lawsuit.

[186] $r = .372$ ($p=.028$).

likelihood of recovery or the size of that recovery.[187]

E. *Settlements*

Table III-7 reports available settlement information for both plaintiffs and defendants in medical malpractice cases. We possessed that information for plaintiffs in forty-one (36.0%) of our cases and for defendants in forty-three (37.7%) of those lawsuits.

Both plaintiffs and defendants increased the size of their settlement proffers as the severity of the plaintiff's injury increased. These positive correlations, however, achieved significance only when we excluded death cases from our analysis.[188] In death cases, both plaintiffs and defendants appeared to name *smaller* settlement amounts than in other cases although these relationships were not significant.[189] In settlement negotiations as well as jury verdicts, therefore, death cases fared less well than claims of serious injury.[190]

Although the contrast between death and nondeath cases is interesting, the apparent agreement of plaintiffs and defendants in assessing these claims is even more noteworthy. Both plaintiffs and defendants followed the pattern described above. In addition, the correlation between offers and demands was positive and approached significance.[191] This agreement contrasts with product liability cases, in which plaintiffs and defendants appeared to differ substantially when valuing claims for settlement.

Malpractice plaintiffs were also more astute than product liability claimants in matching their demands to the eventual verdict. Among successful plaintiffs, the verdict amount correlated highly with the size of the previous settlement demand.[192] Defendants' offers showed no similar relationship. On the other hand, defendants offered higher settlements when plaintiffs employed more

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[187] We did not include the number of plaintiff's or defendant's expert witnesses in our multivariate analyses because too many values were missing for those variables. *See supra* note 65. In bivariate analyses limited to post-1991 cases, however, none of these relationships even approached significance.

[188] Before excluding death cases, the correlation between the size of the plaintiff's demand and injury severity was .241 (p=.134), while the correlation between size of the defendant's offer and injury severity was .211 (p=.181). After excluding death cases, these correlations increased to .510 (p=.005) and .489 (p=.004).

[189] The average plaintiff's demand was $398,636 in death cases and $546,000 in nondeath cases. Similarly, the mean defendant's offer was $12,018 in death cases and $112,910 in nondeath ones. For plaintiffs, p=.620. For defendants, p=.307.

[190] *See supra* notes 163–65 and accompanying text.

[191] $r = .303$ (p=.068).

[192] $r = .683$ (p=.002). The amount of a plaintiff's demand, however, did not accurately predict whether the plaintiff would recover ($r = -.049$, p=.761).

lawyers and when more time had elapsed before trial.[193] The former relationship could reflect a tendency for plaintiffs to employ more lawyers for high-stake claims; defendants then would respond to the possibility of a high verdict rather than to the number of plaintiff's lawyers. The positive relationship between defendant's offer and pre-trial delay suggests that defendant's offers rise as the negotiating period progresses.

Medical malpractice defendants seemed considerably more resistant to settlement than were product liability defendants. In twenty-three of the forty-three cases for which we had information about the defendant's best offer (53.5%), the settlement offer was zero. In other words, the defendant was not willing to discuss settlement on any terms in half the cases for which we have offer information.[194] Even among cases that plaintiffs won, defendants offered no settlement in about half (47.4%) of the cases for which we knew defendant's final offer. This percentage of "zero offers" far exceeds the percentage of such offers in product liability cases.[195]

The resistance of medical malpractice defendants to settlement meant that they often lost money by going to trial. To offer a conservative assessment of those losses, Table III-7 compares settlement offers and demands to the plaintiff's "adjusted verdict," that is, to the jury award as modified during any post-trial proceedings or appeals. We have information about the plaintiff's demand in seventeen of the thirty-five lawsuits that plaintiffs both won before the jury and for which post-verdict information was available. In seven of those cases (41.2%) the plaintiff offered to settle for a lower amount—often a considerably lower amount—than the plaintiff ultimately recovered.[196] In the $12,000,000 verdict noted above, for example, the plaintiff initially demanded $3,750,000 and reduced that demand to $2,000,000 on the morning of trial. Although the trial judge reduced the jury's verdict to $8,150,000, the defendant lost $6,150,000 by pushing the case to trial rather than accepting the plaintiff's best offer. In other cases, defendants lost as much as $575,000 or $1,050,000 by

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[193] The correlation coefficient for size of the defendant's offer and number of plaintiff's lawyers was .329 (p=.031). The coefficient for length of pre-trial period and size of defendant's offer was .442 (p=.003). We also detected a possible relationship between trial length and size of the defendant's offer. For this relationship, r = .299 (p=.064).

[194] Even this percentage may underestimate the percentage of cases in which defendants were unwilling to settle with plaintiffs. The seventy-one cases for which we lack information on the defendant's best offer (almost two-thirds of the population) may well be cases in which the defendant offered no damages in settlement.

[195] In product liability cases, defendants refused to make any offer in only 17.6% of the cases for which we have settlement information, and none of those zero offers occurred in cases that plaintiffs ultimately won.

[196] In one other case, the plaintiff offered to settle for exactly the amount that the jury awarded, $300,000.

going to trial.

As in product liability cases, however, both malpractice plaintiffs and defendants made rational decisions to try cases if we consider those cases in the aggregate. Juries imposed a few large verdicts on defendants, but defendants won the majority of malpractice cases, including cases in which plaintiffs had demanded large settlements. As a result, defendants netted $6,611,185 by going to trial, an average of almost $174,000 per case.[197]

Plaintiffs fared even better by going to trial. Although they rejected low and modest settlements in cases that they lost before the jury, they more than made up for those losses by winning several large verdicts from defendants. Overall, plaintiffs netted $12,704,815 by going to trial, almost $326,000 per case.[198]

It is noteworthy that the position of plaintiffs and defendants in malpractice cases reverses the position of those parties in product liability cases. In malpractice cases, plaintiffs gained more than defendants from rejecting settlement offers and proceeding to trial. In product liability cases, defendants gained more than plaintiffs from eschewing settlement and defending claims in court. The differences derive both from the somewhat higher plaintiff win rate in malpractice cases and from the large percentage of zero offers by defendants in these cases.

It is difficult to assess further the efficiency of settlement decisions without information about cases that do settle. That information might reveal systematic undercompensation of plaintiffs, unfair pressure on defendants to settle nuisance suits, or a variety of other patterns in the cases that do not reach a jury verdict.[199] The information outlined above, however, suggests that both plaintiffs and defendants currently make rational decisions about the cases that do come to trial; overall, both sides benefited from electing trials in the cases for which we have information. On the other hand, it appears that malpractice defendants—rather than plaintiffs—may be somewhat too inclined to resist settlement and push cases to trial.

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[197] If we exclude the largest and somewhat unrepresentative jury verdict from the pool, defendants realized a net gain of $12,761,185 by going to trial (almost $345,000 per case). Excluding this outlying verdict, however, distorts the results because it is exactly this type of large verdict that defendants fear in calculating the advantages of settlement.

[198] If we exclude the one very large verdict, plaintiffs fared somewhat less well. Under these circumstances, plaintiffs netted $4,654,815 by going to trial, a more modest $122,495 per case. It seems most fair to include the large verdict in these calculations, however, because the titanic recovery is exactly what plaintiffs (and their attorneys) hope for in making these calculations.

[199] We are in the process of gathering systematic information from law firms about settled and abandoned claims. That information, to be analyzed in a later article, may shed substantially more light on the efficacy of the settlement process.

Table III-7: Final Settlement Offers and Demands, Medical Malpractice Claims in Franklin County, Ohio, 1985–1996

Defendant's Last Offer	Plaintiff's Last Demand	Adjusted Verdict	Defendant's Gain	Plaintiff's Gain
n/a	25,000	100,000	-75,000	n/a
n/a	150,000	0	150,000	n/a
n/a	500,000	0	500,000	n/a
n/a	500,000	0	500,000	n/a
0	n/a	0	n/a	0
0	n/a	0	n/a	0
0	n/a	300,000	n/a	300,000
0	n/a	800,000	n/a	800,000
0	3500	0	3500	0
0	6000	0	6000	0
0	20,000	0	20,000	0
0	35,000	115,000	-80,000	115,000
0	40,000	0	40,000	0
0	75,000	0	75,000	0
0	87,000	40,000	47,000	40,000
0	100,000	0	100,000	0
0	100,000	new trial	unknown	unknown
0	300,000	300,000	0	300,000
0	325,000	settled	unknown	unknown
0	400,000	0	400,000	0
0	450,000	0	450,000	0
0	450,000	1,500,000	-1,050,000	1,500,000
0	550,000	151,062	398,938	151,062
0	1,000,000	0	1,000,000	0
0	1,000,000	454,500	545,500	454,500
0	1,500,000	0	1,500,000	0
0	4,700,000	0	4,700,000	0
2000	3500	4000	-500	2000
2000	90,000	0	90,000	-2000
5000	15,000	0	15,000	-5000
5000	90,000	150,000	-60,000	145,000
10,000	500,000	50,000	450,000	40,000
15,000	135,000	17,253	117,747	2253
25,000	275,000	130,000	145,000	105,000
25,000	475,000	0	475,000	-25,000
30,000	100,000	2000	98,000	-28,000
30,000	450,000	0	450,000	-30,000

Table III-7 Continued

Defendant's Last Offer	Plaintiff's Last Demand	Adjusted Verdict	Defendant's Gain	Plaintiff's Gain
40,000	490,000	settled	unknown	unknown
50,000	150,000	200,000	-50,000	150,000
60,000	275,000	850,000	-575,000	790,000
75,000	n/a	settled	unknown	unknown
75,000	100,000	0	100,000	-75,000
75,000	450,000	0	450,000	-75,000
75,000	850,000	0	850,000	-75,000
100,000	2,000,000	8,150,000	-6,150,000	8,050,000
450,000	n/a	0	n/a	-450,000
500,000	2,000,000	1,025,000	975,000	525,000

F. *Gender Differences*

We detected a surprising number of gender differences in medical malpractice cases. As noted above, successful female plaintiffs obtained significantly higher verdicts than successful male ones once we controlled for a variety of factors.[200] We also noted a number of interesting bivariate correlations with the plaintiff's gender. Female plaintiffs were somewhat less likely than male ones to bring a claim of erroneous medical diagnosis to trial.[201] Women were also significantly less likely to pursue a trial against a purely institutional defendant.[202] On the other hand, female plaintiffs were significantly more likely to litigate malpractice claims against health care workers who lacked a medical degree.[203] Trials involving female plaintiffs also lasted significantly longer than those concerning male plaintiffs.[204] These cases also appeared to take longer to

[200] *See supra* notes 141–42 and accompanying text. Curiously, verdict size showed no significant bivariate correlation with plaintiff's gender. Only after controlling for other variables did this gender effect emerge.

[201] Almost one-third (31.1%) of the claims litigated by male plaintiffs were erroneous diagnosis claims, while only 17.6% of the claims tried by women fell into that category. This difference approached significance at the conventional level (p=.076).

[202] Once again, almost one-third of male claims (31.1%) were against purely institutional defendants, while only one in ten of the women's claims (10.3%) involved those defendants alone. This difference was statistically significant (p=.006).

[203] Less than five percent of male plaintiffs (4.4%) tried malpractice claims against health care workers who lacked a medical degree. The proportion of female plaintiffs trying claims against these health care workers (16.2%) was almost four times higher. The difference was statistically significant (p=.049).

[204] Trials for female plaintiffs lasted, on average, 6.2 days, while trials for male plaintiffs

come to trial although the difference between male and female plaintiffs merely approached significance on this measure.[205]

These differences, of course, do not necessarily reflect differences in the entire pool of malpractice plaintiffs. They may instead reflect differences in settlement patterns of male and female plaintiffs and thus in the claims that proceed to trial. It is possible, for example, that institutional defendants more readily settle claims pursued by female plaintiffs than by male ones; this behavior would produce the significant imbalance we observed in the gender of plaintiffs pursuing claims against institutional defendants at trial. Without more information about settled and withdrawn claims, we can only begin to suggest explanations for some of the differences we observed. The differences themselves, however, suggest that the treatment of malpractice claims involves a large number of gender differences.

Women were less well represented among malpractice defendants than among plaintiffs. As noted above, a woman appeared among the defendants in only 14.0% of the trials in which at least one individual defendant appeared.[206] The presence of a female defendant did not affect the plaintiff's likelihood of recovery or the size of a successful plaintiff's verdict—either in bivariate analyses or after controlling for other factors. Trials against at least one female defendant, however, appeared to consume more time than trials against all male or institutional defendants.[207] This difference merely approached significance at the conventional level (p=.080), but is interesting in light of the parallel finding with respect to female plaintiffs. It is not clear why the presence of a female plaintiff or defendant should prolong trial time—or whether this distinction emerges because of some gender difference in settlement behavior.

We also noticed two intriguing relationships that suggest gender-conscious decisions in planning trial strategies. Female defendants were significantly more likely to appear in trials presided over by female judges,[208] and plaintiffs were significantly more likely to employ at least one female lawyer when a woman appeared among the defendants.[209] The first relationship may suggest that the

averaged 4.6 days (p=.003).

[205] On average, claims pursued by female plaintiffs took 33.9 months to come to trial, while those pursued by men took only 28.3 months (p=.083).

[206] *See supra* text following note 151. Overall, including trials against purely institutional defendants, the defendants included a woman 11.4% of the time.

[207] Trials involving a female defendant consumed, on average, 7.7 days, while trials involving male defendants or exclusively institutional defendants lasted an average of only 5.3 days.

[208] One-third of the trials involving a female defendant (33.3%) occurred before a female judge, while only 10.1% of trials involving all male or institutional defendants occurred before female judges. This difference was statistically significant (p=.044).

[209] In more than a third of the cases involving a female defendant (38.5%), plaintiffs

presence of a female judge encourages female defendants to resist settlement and proceed to trial. Perhaps these defendants believe their chances are better with a woman presiding over the courtroom.[210] The second relationship suggests that plaintiffs may consciously staff their claims with female lawyers when they face a female defendant. Alternatively, these cases may be less likely than others to settle for some reason.

The presence of a female judge, like that of a female plaintiff or defendant, corresponded with a significantly longer trial length. Trials before female judges lasted an average of 7.0 days, while those before male judges ended, on average, after 5.3 days (p=.031). To disentangle the effects of female defendants and female judges (variables that themselves correlated), we estimated an ordinary least squares regression equation to predict trial length in medical malpractice cases.[211] The gender of both plaintiffs and defendants remained significant after controlling for other factors. In other words, trials involving either a female plaintiff or a female defendant, on average, were longer than other malpractice trials. The coefficient marking the presence of a female judge was also positive and narrowly missed significance at the conventional level (p=.051). Thus, all three gender differences may bear some relationship to trial length.[212]

Female judges, as one might expect, were more likely to preside over recent trials than earlier ones.[213] The prevalence of female lawyers working for

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chose to employ at least one female lawyer. In cases involving male or institutional defendants, only 7.9% of plaintiffs used a female lawyer. This difference was statistically significant (p=.007).

[210] Our data, however, did not support any such belief. We found no significant difference between male and female judges either in overall recovery rates or in recovery rates against female defendants.

[211] The full equation is available from the authors.

[212] The most important predictor of trial length, however, was severity of the plaintiff's injury. As one might expect, after controlling for other factors, more serious injuries generated longer trials. The number of plaintiff's lawyers also corresponded significantly with trial length, with more lawyers associated with longer trials. Apart from these two variables, however, the only variables whose coefficients reached or approached significance were the three gender variables described in text.

Once again, the relationship between female judges and trial length (or between female parties and trial length) is not necessarily a direct causal one. It is possible that parties are less likely to settle complex cases assigned to female judges than to male ones. If so, this could result from the judge's behavior; male judges, on average, might act more aggressively to encourage settlement of complex cases. The relationship, however, could also stem from the perception of parties or lawyers, who may overestimate their own success before a female judge.

[213] The average "year" for verdicts rendered before female judges was 1993.1, while the average year for verdicts occurring before male judges was 1990.8 (p=.007).

plaintiffs also increased over time.[214] Curiously, however, this was not true for defense lawyers. Women were slightly more likely to appear at the defense table in later years, but the difference was not statistically significant.[215] Women lawyers were also more likely to represent malpractice defendants than any of the other parties we studied: Almost one-fifth of malpractice defense teams (18.4%) included at least one woman lawyer, while only 11.4% of plaintiffs in malpractice trials retained at least one woman.[216] These comparisons suggest that women have a longer and more secure history as defense counsel in malpractice cases, while they are just beginning to represent malpractice plaintiffs and product liability defendants—and have not yet achieved any representation as counsel for product liability plaintiffs.

Even malpractice defendants, on the other hand, were unlikely to employ women as solo counsel. Only five women appeared as solo trial counsel for the defendant, while fifty-seven men did so. For both plaintiffs' and defendants' counsel, the presence of a female lawyer correlated significantly with a larger legal team. The average size of a plaintiff's team including at least one woman lawyer was 1.7, while the average size of all-male teams was 1.3.[217] For defendants the discrepancy was even larger; teams that included at least one woman averaged 2.3 lawyers, while all-male defense teams averaged just 1.4 lawyers.[218] We noted the same relationship in product liability cases.[219] Parties and law firms thus appear more likely to employ women as the size of a trial team grows.

Gender differences also emerged in the type of claims women lawyers defended. Women defended only 3.8% of the cases in which plaintiffs suffered a serious permanent injury, while they helped defend 22.7% of other malpractice claims (p=.021). Conversely, women appeared more likely to defend wrongful death claims than other types of malpractice cases; they appeared at the defense table in 30.0% of wrongful death cases but only 14.3% of the cases in which the plaintiff survived. This difference barely missed significance at the conventional

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[214] The average year for verdicts rendered in cases involving at least one female plaintiff's lawyer was 1993.9, while the average year for verdicts secured by all-male plaintiff's teams was 1990.6 (p=.000).

[215] The average year of verdict for cases in which at least one woman appeared as defense counsel was 1991.8, while the average year for other cases was 1990.8 (p=.178).

[216] As noted above, women were even more scarce in product liability trials. Women represented no plaintiffs in those trials and participated in defending only 8.7% of defendants. *See supra* notes 121–24 and accompanying text.

[217] This difference was statistically significant (p=.016).

[218] This difference was also statistically significant (p=.000).

[219] *See supra* note 121 and accompanying text.

level (p=.055).[220]

Perhaps our most noteworthy gender-related findings, however, emerged from multivariate analyses of both the plaintiff's likelihood of recovery and verdict size for successful plaintiffs. After controlling for other factors, representation by a female lawyer was associated with better outcomes for *both* plaintiffs and defendants. When the defendant retained at least one woman lawyer, the plaintiff was significantly less likely to recover (see Table III-5), and the verdict for any successful plaintiff was significantly lower (see Table III-6). Conversely, when the plaintiff's legal team included at least one woman, the plaintiff appeared more likely to recover—although this difference merely approached significance at the conventional level.[221]

These surprising, and consistent, gender effects might derive from particularly strong trial skills among female lawyers. Especially if women have had difficulty obtaining courtroom work,[222] the women who enter that arena may be particularly qualified. Alternatively, the apparent success of female attorneys could derive from clients' and law firms' cautiousness in employing women. It is possible that clients hire women—or firms assign them to cases—only when they believe the case will be easy to win.[223] Whatever the explanation for the pattern, however, the consistency of the results and their emergence after controlling for other variables suggests that gender has important effects in medical malpractice cases. These results warrant further study in both malpractice and other litigation fields.

G. *Trends*

The number of medical malpractice verdicts increased significantly between

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[220] Once again, these distinctions might derive from differences in settlement rates rather than in initial employment of women lawyers. It is possible, for example, that men and women are equally likely to defend malpractice claims involving serious permanent injuries but that women settle those cases more readily than men do.

[221] We found no significant relationship between verdict size and presence of a woman on the plaintiff's legal team although the coefficient for the latter variable was positive. *See supra* Table III-6.

[222] Some analyses of female attorneys suggest that they have particular difficulty entering the litigation field. *See, e.g.*, CYNTHIA FUCHS EPSTEIN, WOMEN IN LAW 103–04 (2d ed. University of Ill. Press 1993); MONA HARRINGTON, WOMEN LAWYERS: REWRITING THE RULES 129 (1994); Lynn S. Glasser, *Survey of Female Litigators: Discrimination by Clients Limits Opportunities, in* THE WOMAN ADVOCATE: EXCELLING IN THE 90'S, at 59 (Jean Maclean Snyder & Andra Barmash Greene eds., 1995).

[223] Our multivariate equations controlled for the size of both plaintiff's and defendant's trial teams, so we cannot attribute the gender effects revealed in Tables III-5 and III-6 simply to women's presence on larger trial teams. It is true that those teams might, on average, be more successful than small teams, but the regression equations take that possible effect into account.

1985 and 1992, from five in the former year to sixteen in the latter year.[224] After 1992, however, verdicts again declined, averaging only 9.5 verdicts annually during the succeeding four years.[225] Even during the peak year of 1992, the total number of verdicts (sixteen) appears small for a county encompassing more than one million residents. The period preceding reform at the end of 1996, therefore, does not seem to have witnessed a dramatic increase in medical malpractice verdicts. Instead, verdicts appear to have been on the decline after a moderate peak earlier in the decade.

Equally important, both plaintiff win rates and verdict size declined significantly during the twelve years preceding reform in Ohio. Table III-2 chronicles the dramatic decline in plaintiff wins—and concurrent rise in defendant victories—during the twelve years we studied. During 1985, the first year we analyzed, defendants won 40.0% of the malpractice claims they litigated. In the following year, they prevailed in a comparable 37.5% of the cases. By 1991, the middle of the period we studied, the percentage of defendant wins had risen to 75.0%. Defendants maintained the same win rate during the following year, and raised it further in 1993 to 77.8%. By 1996, the last year we analyzed, defendants won fully 90.0% of the malpractice claims they litigated.

Our multivariate analysis, moreover, confirms that this trend was not due to changes in the nature of plaintiffs' claims, injuries, or other variables. Even after controlling for those factors, the coefficient for verdict month (a measure of passing time) showed a significant negative association with the likelihood that a plaintiff would prevail. Thus, a medical malpractice plaintiff in 1996 was significantly less likely to win a jury verdict than was a plaintiff in 1985—even if the plaintiffs alleged similar types of malpractice and suffered similar injuries.

Similarly, verdict amounts for successful plaintiffs declined over time. The four highest verdicts in our database occurred before 1992, with just one verdict exceeding the million-dollar mark after that time. The mean verdict from 1986 through 1991 was $1,117,116, while after 1991 the mean fell to $340,424.[226] These figures are particularly dramatic because they do not control for inflation. Thus verdicts fell in face dollar amounts, even as the real value of those dollars also declined.

Table III-6 shows this trend even more clearly. After controlling for the severity of the plaintiff's injury, the nature of the alleged malpractice, and other

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[224] A bivariate correlation between the year and the annual number of verdicts for these eight years (1986–1992) was both positive (r=.873) and significant (p=.005).

[225] During the first four years of the period we studied, 1985–1988, malpractice verdicts averaged 6.75 each year. During the next four years, 1989–1992, verdicts averaged 12.25 each year. During the final four-year period, as reported in the text, verdicts averaged 9.5 each year.

[226] This difference in means is not statistically significant but is suggestive of the trend confirmed by our multivariate analysis.

variables, the coefficient for verdict month showed a significant negative association with verdict amount. Thus, successful malpractice plaintiffs who won verdicts later in the period we studied recovered significantly lower damages than did plaintiffs who secured verdicts earlier in the period.[227] This remained true even for injuries of comparable severity.

Thus, trends in both recovery rates and verdict size dramatically favored defendants during the years immediately preceding reform. Rather than signaling a crisis in the tort system, these trends suggested a rapid decline in plaintiff's recoveries in medical malpractice cases.

IV. DISCUSSION: WAS THERE A CRISIS?

The evidence detailed above strongly suggests that Franklin County's tort system suffered no crisis during the twelve years preceding 1997. Nor was Franklin County unusual in this respect. In this section, we summarize the absence of crisis in Franklin County and draw parallels between our findings and those of other researchers in different parts of the country. We then briefly address reforms of the tort system under consideration around the country, demonstrating that they are ill-suited to the state of the current tort system.

A. *The Missing Crisis*

Close empirical examination of product liability and medical malpractice verdicts in Franklin County, a representative urban county, refutes claims of a tort crisis. Available data from other jurisdictions point in the same direction. We identified eight different indications that, far from being in crisis, the tort system both operates smoothly and tends to favor defendants in product liability and medical malpractice lawsuits.

1. *Low Filing and Verdict Rates*

The annual number of product liability and medical malpractice claims filed in Franklin County is surprisingly low. A county of more than one million residents generated about sixty product liability claims and three hundred medical malpractice complaints each year. In contrast, county residents filed or reactivated about 2,900 other tort claims each year.[228] The majority of those

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[227] As explained in the methods section, *see supra* note 51 and accompanying text, we used constant 1984 dollars as the dependent variable in multivariate analyses. Thus, the negative coefficient for time in Table III-6 suggests that malpractice verdicts declined in constant dollars over the period we studied. The bivariate comparisons reported in the previous paragraph, however, suggest that verdicts declined in actual amounts as well.

[228] *See, e.g.*, THE SUPREME COURT OF OHIO, THE OHIO COURTS SUMMARY 1996, at 12E

complaints were small-stakes automobile negligence claims, not the type of cases tort reformers feature.

Even after combining all tort claims, those complaints constitute only a fraction of the civil justice system. During the most recent year we studied, Franklin County residents filed or reactivated 2,330 mortgage foreclosures,[229] 4,494 claims based on contract or other nontort principles,[230] and 8,941 domestic relations cases.[231] Disputes over mortgages, contracts, domestic relations, and other civil matters were five times more likely to produce courthouse filings than were complaints of any type of personal injury.

Nationwide data tell the same story. A Department of Justice study of civil cases in the nation's seventy-five largest counties concluded that medical malpractice claims constitute about 4.9% of all tort filings, while product liability complaints comprise only 3.4% of those filings.[232] Tort cases themselves, moreover, make up only about ten percent of civil claims filed in state courts of general jurisdiction.[233] Product liability and medical malpractice claims thus each account for less than half of one percent of civil cases filed in state courts.[234] In contrast, domestic relations lawsuits constitute more than forty percent of state civil filings.[235]

(reporting 2,937 "other tort" cases filed or reactivated in Franklin County during 1996).

[229] *See id.* at 20E.

[230] *See id.* at 32E.

[231] *See id.* at 2F.

[232] *See* SMITH ET AL., *supra* note 1, at 2. The study was based on cases closed from July 1, 1991, to June 30, 1992, in state courts of general jurisdiction in those seventy-five counties. For some analyses, the researchers drew a representative sample of cases from forty-five of the counties. *See id.* at 1; *see also* Eaton & Talarico, *supra* note 6, at 650 (product liability claims constituted only 1.3% of tort claims filed in four Georgia counties between 1990 and 1993; medical malpractice complaints constituted another 3.6% of tort claims).

[233] *See* SMITH ET AL., *supra* note 1, at 2. The percentage may be even lower outside these large urban counties. *See, e.g.*, Eaton & Talarico, *supra* note 6, at 641 (tort claims constituted only 4.9% of civil filings in four Georgia counties). *See generally* Saks, *supra* note 30, at 1208 (tort claims comprise less than ten percent of the civil justice system in most states where data have been compiled).

[234] This figure probably overestimates the prevalence of product liability and medical malpractice claims. Most states maintain courts of limited jurisdiction as well as general jurisdiction; product liability and medical malpractice claims are very unlikely to appear in the former courts. *See supra* note 28 and accompanying text (discussing Ohio's courts of limited jurisdiction). Including claims filed in courts of limited jurisdiction, therefore, would further depress the percentage of medical malpractice and product liability claims.

[235] *See* SMITH ET AL., *supra* note 1, at 2; *see also* Eaton & Talarico, *supra* note 6, at 642 (domestic relations cases composed about half the civil litigation docket in two Georgia counties and more than 70% of that docket in two other counties); Galanter, *supra* note 3, at 1105 n.34 (domestic relations filings in state courts of general jurisdiction increased by 37%

Federal claims alter this picture only slightly. The federal courts, like their state counterparts, docket relatively few tort complaints compared to other civil claims. Less than one-fifth of federal civil filings are tort cases.[236] Federal courts, moreover, do not play any special role in processing medical malpractice claims; some plaintiffs file those claims in federal court, but malpractice claims do not constitute an unusually large percentage of federal tort filings.

Product liability complaints do constitute a larger percentage of the federal civil docket. Because of the special role federal courts play in mass tort litigation, about one-third of the tort claims filed in federal court are product liability suits.[237] Overall, however, federal claims constitute only about four percent of tort cases nationwide.[238] Even after accounting for lawsuits filed in federal court, therefore, product liability claims constitute only about 4.4% of tort claims nationwide.[239]

The number of complaints filed in any court, of course, greatly exceeds the number of jury verdicts rendered in that court. Over the twelve-year period we studied, Franklin County juries delivered an average of less than four product liability verdicts and fewer than ten medical malpractice verdicts each year. Jury trials in automobile negligence or business and contract disputes were much more common. Franklin County juries resolved about thirty-five of the former cases and twenty-two of the latter disputes each year.[240] Product liability and

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between 1988 and 1993).

[236] *See* PRESS, *supra* note 7, at 1 (during 1994–1995, tort cases constituted about 18% of civil claims terminated by U.S. district courts).

[237] *See* SMITH ET AL., *supra* note 1, at 1 n.1. This figure may overstate the number of product liability claims filed in federal court; one researcher has suggested that when cases are transferred from one district to another (a common occurrence in product liability cases) the federal system double counts the filings. *See* Galanter, *supra* note 3, at 1108.

[238] *See* SMITH ET AL., *supra* note 1, at 1.

[239] If federal claims constitute four percent of all tort filings, and one third of those federal claims allege product defects, then 1.3% of all tort filings are product liability complaints filed in federal courts. Meanwhile, 96% of all tort filings occur in state courts and 3.4% of the latter filings are product liability claims. Therefore, 3.3% of all tort filings must be product liability claims filed in state court, and 4.4% of all tort claims contain product liability allegations. This figure probably overstates the percentage of product liability lawsuits because it is based in part on filings in large counties. Small counties most likely receive a smaller percentage of product liability filings than larger counties do.

[240] These averages are drawn from CHAPPELEAR, *supra* note 34, at 6. To calculate the average number of verdicts in motor vehicle cases, we combined Chappelear's categories of "motor vehicle crashes" and "motor vehicle-pedestrian crashes." For business and contract disputes, we combined the categories of "business disputes," "sale of goods and services," "fraud," "insurance," "construction," "employment," and "real estate." A brief perusal of cases falling into these categories indicated that all of them involved alleged breaches of contract or related matters. In all, Franklin County juries produced an average of 84.8 civil verdicts a year

medical malpractice trials occupy only a small corner of the legal system.

Once again, the small number of jury verdicts in Franklin County corresponds with the experience of courts nationwide. Between July 1, 1991, and June 30, 1992, juries in the nation's seventy-five largest counties rendered 647 product liability verdicts and 1,370 medical malpractice decisions.[241] On average, therefore, each county witnessed only 8.6 product liability verdicts and 18.3 medical malpractice verdicts that year. During the same year, juries in each county decided an average of 52.2 automobile negligence cases, 29.6 contract disputes, and 3.7 real estate controversies.[242] These averages, based on data collected for a single year, may be artificially high; our Franklin County figures suggest that 1992 experienced an exceptionally high number of jury verdicts.[243] Even data gathered during a peak year demonstrate that the number of jury verdicts in product liability and medical malpractice cases is low both in absolute numbers and as a percentage of all civil jury verdicts.[244]

Federal jury verdicts are equally scarce although the percentage of product liability verdicts is higher in federal courts than in state courts. In fiscal year 1991–1992, federal juries rendered 73 medical malpractice verdicts, 199 asbestos-related verdicts, and 218 other product liability verdicts.[245] On average, therefore, each of the ninety federal districts issued 0.81 medical malpractice verdicts, 2.21 asbestos verdicts, and 2.42 other product liability verdicts. These verdicts comprised about 43% of tort jury verdicts in the federal courts, representing the somewhat greater share of product liability claims in those

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from 1985 through 1994. *See id.*

241 *See* DEFRANCES, *supra* note 7, at 2. The number of product liability verdicts reported above includes both the product liability and toxic substance categories from the Civil Justice Survey. *See id.* at n.b.

242 *See id.* at 2 (juries in 75 counties decided 3,915 automobile negligence cases, 2,217 contract disputes, and 277 real estate cases).

243 Franklin County recorded 135 jury verdicts in 1992, more than in any other year we studied. Indeed, many of the years we studied witnessed fewer than half this number of verdicts. The county, moreover, produced 15 medical malpractice verdicts during 1992—again, an unusually high number but one that closely matches the county average computed from the Civil Justice Survey figures. It is possible, therefore, that 1992 represented an unusual peak year for jury verdicts. If so, the Civil Justice Survey overstates the extent of jury verdicts in large counties.

244 *See also* OSTROM & KAUDER, *supra* note 7, at 25 (estimating that product liability claims constitute 2% of all tort trials in state court, while medical malpractice claims constitute 12% of those trials).

245 *See* Eisenberg, *supra* note 32, at 436–37; *see also* PRESS, *supra* note 7, at 3 (in two other recent years, federal juries decided about 185 medical malpractice cases and 473 product liability claims; each year, therefore, juries in the ninety federal districts decided an average of 1.0 medical malpractice cases and 2.6 product liability suits).

courts.[246] The federal courts, however, devoted as many resources to contract trials as to product liability or medical malpractice ones. During the same fiscal year, the federal courts concluded 463 jury trials on contract claims, or about 5.14 trials per district.[247] Even in federal court, product liability and medical malpractice verdicts are scarce in absolute numbers and retain a minority share of the civil trial docket.

Researchers repeatedly have shown that the majority of individuals injured by negligent conduct—whether medical malpractice, flawed manufacturing processes, or other actions—never file a legal complaint. The "Harvard Study" of medical care in New York concluded that only 2% of patients who suffered negligent treatment, as judged by physician raters, filed malpractice claims.[248] A recent Florida survey similarly found that among 220 women who suffered an adverse birth outcome (usually death or serious, permanent injury to the infant) *none* filed a malpractice claim.[249] Although we had no measure of the incidence of medical malpractice or product-related negligence in Franklin County, our data are consistent with these studies. The small number of malpractice and product complaints filed in Franklin County, as well as in other large counties

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[246] *See* Eisenberg, *supra* note 32, at 437 (reporting a total of 1,124 federal jury verdicts in tort cases). Conversely, the share of motor vehicle tort cases is lower in federal courts than in state courts.

[247] *See id.*

[248] *See* PAUL C. WEILER ET AL., A MEASURE OF MALPRACTICE 73 (1993). Conversely, the study concluded that a high percentage of filed claims lacked merit as determined by the physician raters. *See id.* at 71–76. On this score, some critics have pointed out that the study's assessment of negligence depended upon medical charts rather than claim records where evidence of negligence often is more fully developed. The legal system appears to be effective in weeding out nonmeritorious claims. *See, e.g.*, Randall R. Bovbjerg, *Medical Malpractice: Research and Reform*, 79 VA. L. REV. 2155, 2163–66 (1993). The authors of the study themselves agree that the docketing of nonmeritorious claims is "likely due to the fact that . . . patients and their lawyers have a difficult time identifying in advance valid claims that demonstrate that something went wrong in treatment." Paul C. Weiler, *Fixing the Tail: The Place of Malpractice in Health Care Reform*, 47 RUTGERS L. REV. 1157, 1162 (1995). They reject the claim that "'greedy' personal injury lawyers are wont to file spurious tort claims." *Id.*

[249] *See* Frank A. Sloan & Chee Ruey Hsieh, *Injury, Liability, and the Decision to File a Medical Malpractice Claim*, 29 L. & SOC'Y REV. 413, 430 (1995). This finding is particularly noteworthy because Florida has one of the highest rates of malpractice claims in the nation and obstetrics suffers one of the highest claim frequencies among medical specialties. *See id.* The authors of this study did not disclose how many of these 220 injuries derived from negligence, as determined by their independent physician raters, but it appears that some did. For other studies documenting low filing rates among injured people or negligence victims, see, e.g., Marlynn L. May & Daniel B. Stengel, *Who Sues Their Doctors? How Patients Handle Medical Grievances*, 24 L. & SOC'Y REV. 105 (1990); Don Harper Mills, *Medical Insurance Feasibility Study: A Technical Summary*, 128 W.J. MED. 360 (1978). *See generally* Saks, *supra* note 30, at 1183–84 (summarizing studies).

nationwide, suggests that most victims of these types of negligence eschew the legal process.[250]

2. *Low Win Rates for Plaintiffs*

Plaintiffs lost the overwhelming majority of product liability and medical malpractice claims they brought to trial. Franklin County plaintiffs won only one-fifth of their product liability trials and less than one-third of medical malpractice lawsuits. In comparison, plaintiffs won 78.9% of business disputes, 69.1% of employment-related trials, and 73.5% of real estate controversies.[251]

Nationwide figures are comparable. In the country's most populous counties, medical malpractice plaintiffs win only 30.3% of their jury trials and product liability plaintiffs prevail just 40.5% of the time.[252] These success rates are among the lowest recorded for any category of civil claim. Plaintiffs in contract actions win almost two-thirds (62.9%) of their actions, while plaintiffs who sue professionals other than health care workers win 50.3% of jury verdicts.[253] The only plaintiffs who fare as poorly as medical malpractice or product liability complainants in state courts are government agencies prosecuting eminent domain actions.[254]

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[250] *See also* Richard L. Abel, *The Real Tort Crisis—Too Few Claims*, 48 OHIO ST. L.J. 443 (1987); Richard A. Posner, *Explaining the Variance in the Number of Tort Suits Across U.S. States and Between the United States and England*, 26 J. LEGAL STUD. 477, 487–88 (1997) (after controlling for factors like income, education, and urbanization, U.S. citizens appear to file fewer tort claims than their English counterparts).

[251] *See* CHAPPELEAR, *supra* note 34, at 152, 186, 198.

[252] *See* DEFRANCES, *supra* note 7, at 4. In toxic substance tort cases, a category that includes many product liability claims, plaintiffs prevailed 74.0% of the time. *See id.*; *see also* Eaton & Talarico, *supra* note 6, at 663 (In Fulton County, Georgia, juries found for the plaintiff in only one out of nine medical malpractice cases tried in 1992.); *id.* at 664 & n.75 (One of the largest medical malpractice insurers in Georgia maintains that its insureds win almost 80% of cases that go to trial.).

[253] *See* DEFRANCES, *supra* note 7, at 4.

[254] *See id.* (showing a 20.7% success rate for eminent domain plaintiffs). Plaintiffs also won only 20.0% of mortgage foreclosure cases, but juries decided only six of those cases during the entire year making the category too small for valid comparisons. *See id.*; *see also* MOLLER, *supra* note 7, at 16 (1996) (plaintiffs win only 33% of medical malpractice cases and 44% of product liability trials—the lowest win rates among civil claims included in this analysis); OSTROM & KAUDER, *supra* note 7, at 34 (plaintiffs win 30% of medical malpractice claims and 40% of product liability claims—the lowest win rates among tort plaintiffs); VIDMAR, *supra* note 2, at 39 (in North Carolina, medical malpractice plaintiffs won 20% of trials from 1984–1987 and 16% from 1987–1990); *id.* at 38–39 (summarizing win rates from a variety of medical malpractice studies; rates ranged from 13.5% to 53.0%, with a median of about 29%).

Win rates for product liability and medical malpractice plaintiffs in federal courts are equally low. Medical malpractice plaintiffs won just 31.8% of federal trials in two recent years.[255] Product liability plaintiffs who suffered personal injuries won only 26.8% of those trials.[256] These were the lowest success rates recorded for any category of federal tort plaintiffs.[257] In both state and federal courts, therefore, medical malpractice and product liability plaintiffs face inhospitable recovery odds.

3. *Absence of Punitive Damages*

Empirical studies repeatedly show that juries rarely award punitive damages in product liability, medical malpractice, or other tort cases.[258] Our data

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Low win rates in medical malpractice and product liability cases have existed since 1959. *See* AUDREY CHIN & MARK A. PETERSON, DEEP POCKETS, EMPTY POCKETS: WHO WINS IN COOK COUNTY JURY TRIALS 51 (1985) (discussing a study of more than 9,000 civil jury trials in Cook County, Illinois, between 1959 and 1979 that showed medical malpractice plaintiffs won 33% of trials and product liability plaintiffs won 38% of trials; other categories of tort plaintiffs were more likely to prevail).

[255] *See* PRESS, *supra* note 7, at 4. This percentage includes both bench and jury trials. Another pair of scholars has calculated that medical malpractice plaintiffs won just 26% of federal jury trials in fiscal year 1991–1992. *See* Eisenberg, *supra* note 32, at 437. During a longer period stretching from 1979 to 1993, federal malpractice plaintiffs won 27% of jury trials. *See id.*

[256] *See* PRESS, *supra* note 7, at 4. The small number of product liability plaintiffs claiming property damage were somewhat more successful; they won 39.3% of federal trials. *See id.* The discrepancy between product liability plaintiffs claiming personal injury and those asserting property damage is similar to the difference we observed between those two groups. *See supra* text following note 86.

Another set of researchers has analyzed federal product liability win rates by distinguishing between asbestos cases and all other product claims. According to these researchers, plaintiffs won 87% of asbestos jury trials in fiscal year 1991–1992, but only 37% of other product trials. *See* Eisenberg, *supra* note 32, at 437. During a longer period, stretching from 1979 to 1993, and before federal data distinguished the two categories of claims, product liability plaintiffs won 30% of their federal jury trials. *See id.*

[257] *See* PRESS, *supra* note 7, at 4. Overall, tort plaintiffs did not seem to fare as well in federal court as in state courts. Federal plaintiffs won 42.5% of all tort trials, while state plaintiffs won 53% of those trials. *See id.*; SMITH ET AL., *supra* note 1, at 5. *But see* Eisenberg, *supra* note 32, at 437 (stating that federal tort plaintiffs enjoyed higher success rates than state plaintiffs in fiscal year 1991–1992, although federal win rates for a longer period lag behind state win rates).

[258] *See, e.g.*, MARK PETERSON ET AL., PUNITIVE DAMAGES: EMPIRICAL FINDINGS 8–31 (1987); Stephen Daniels & Joanne Martin, *Myth and Reality in Punitive Damages*, 75 MINN. L. REV. 1 (1990); Theodore Eisenberg et al., *The Predictability of Punitive Damages*, 26 J. LEGAL STUD. 623, 633–37 (1997); Thomas Koenig & Michael Rustad, *The Quiet Revolution Revisited: An Empirical Study of the Impact of State Tort Reform of Punitive Damages in*

emphatically agree with these observations. Although we tracked every jury verdict over an entire twelve-year period in Franklin County, we did not find a single award of punitive damages in a product liability or medical malpractice trial. Punitive damages were much more common in business disputes; during the ten years we studied, five out of thirty successful plaintiffs in business controversies (16.7%) obtained a punitive award.[259]

The Department of Justice produced similar findings after reviewing all jury verdicts in the nation's seventy-five largest counties. That review identified only three punitive damage awards in product liability trials during the year ending June 30, 1992.[260] The *total* amount of punitive damages awarded those three plaintiffs, moreover, was $40,000 (about $13,000 apiece).[261] During the same year, only thirteen medical malpractice plaintiffs in these seventy-five counties obtained punitive damage awards; the average punitive assessment for those plaintiffs was $245,000.[262]

The Department of Justice likewise found that plaintiffs in contract actions are considerably more likely than either medical malpractice or product liability complainants to obtain punitive awards. About one in every eight successful contract plaintiffs (12.2%) in this nationwide study obtained punitive damages, compared to only 3.1% of medical malpractice and 2.2% of product liability plaintiffs.[263] The average punitive damage award in contract cases, moreover, far exceeded the average for medical malpractice or product liability cases. The mean punitive award in contract cases topped one million dollars; awards in those cases accounted for almost two-thirds (63.3%) of the total punitive damages assessed that year.[264]

Products Liability, 16 JUST. SYS. J. 21 (1993).

[259] *See* CHAPPELEAR, *supra* note 34, at 8, 152.

[260] *See* DEFRANCES, *supra* note 7, at 8.

[261] *See id.* Thirteen other plaintiffs in "toxic substance" cases received punitive damage awards averaging $1,994,000. *See id.* Some of those lawsuits may have included product liability allegations although many may have included intentional tort claims as well.

[262] *See id.*

[263] *See id.* Professionals other than health care workers (primarily accountants and engineers) were also substantially more likely to suffer punitive damage awards in malpractice actions; 15.7% of malpractice actions against nonmedical professionals resulted in punitive damages. *See id.*

[264] Total punitive damages assessed in the studied counties reached $267,879,000. Punitive damages in contract cases made up $169,528,000 of that total. *See id.*; *see also* ERIK MOLLER ET AL., PUNITIVE DAMAGES IN FINANCIAL INJURY JURY VERDICTS 20, 22 (1997) (stating that punitive damages are awarded in about 14.2% of all financial injury jury trials; mean awards exceed one million dollars in all categories of financial injury cases).

Recent empirical work has focused on the predictability of punitive damage awards. After analyzing several large data sets, a team of researchers headed by Theodore Eisenberg

4. *Modest Compensatory Awards*

Despite tales of rampant million dollar verdicts, we identified only six verdicts over the million dollar mark in twelve years of product liability and medical malpractice trials. Most plaintiffs recovered substantially less than that amount. One-third of prevailing product liability claimants obtained under $50,000 at trial; the median verdict for successful product liability plaintiffs was $207,560. Similarly, one-third of successful medical malpractice plaintiffs obtained $50,000 or less, while the median award was $198,000. Medical malpractice verdicts, moreover, fell by almost 25% through post-verdict motions and appeals.

The medians we calculated in Franklin County are strikingly similar to those for product liability and medical malpractice plaintiffs nationwide. In large urban counties, the median verdict for a successful product liability plaintiff was $260,000 in 1992; for a winning medical malpractice plaintiff, it was $201,000.[265] Median awards for federal plaintiffs are somewhat higher,[266] but the total number of those plaintiffs remains small compared to state plaintiffs.

The average verdicts in medical malpractice and product liability cases are high when compared to other categories of jury verdicts.[267] The awards in

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concluded that punitive damages are both rare (especially in product liability or medical malpractice lawsuits) and closely tied to compensatory damages. *See* Eisenberg et al., *supra* note 258. Cass Sunstein, Daniel Kahneman, and David Schkade, on the other hand, conducted simulations with potential jurors suggesting that, although the jurors held common moral judgments related to punitive damages, they might have difficulty translating those judgments into consistent monetary awards. *See* Cass R. Sunstein et al., *Assessing Punitive Damages (with Notes on Cognition and Value in Law)*, 107 YALE L.J. 2071 (1998); *see also* A. Mitchell Polinsky, *Are Punitive Damages Really Insignificant, Predictable, and Rational? A Comment on Eisenberg et al.*, 26 J. LEGAL STUD. 663 (1997) (commenting on the Eisenberg study). Although further work needs to be done on predictability, the debate is more relevant to business disputes and other claim categories in which punitive damages are more common. As the Eisenberg study and others persuasively show, these awards are extremely rare in product liability or medical malpractice cases.

[265] *See* DEFRANCES, *supra* note 7, at 5. Median awards in some jurisdictions appear to be considerably lower. In a North Carolina study, the median award for successful plaintiffs in medical malpractice trials was only $36,500 between 1984 and 1990. *See* VIDMAR, *supra* note 2, at 25.

[266] *See* PRESS, *supra* note 7, at 4 (the median award for federal product liability plaintiffs was $284,000 and for medical malpractice plaintiffs it was $463,000). Very high awards in aviation cases (median=$999,000) distort the median award in federal product cases. *See id.*; *see also* Eisenberg, *supra* note 32, at 439 (median federal jury award between 1979 and 1993 was $267,000 in medical malpractice cases and $318,000 in product liability trials).

[267] *See, e.g.*, DEFRANCES, *supra* note 7, at 5 (reporting median awards for numerous civil categories); PRESS, *supra* note 7, at 4 (median awards in federal tort trials). *See generally* DEBORAH R. HENSLER ET AL., COMPENSATION FOR ACCIDENTAL INJURIES IN THE UNITED

malpractice and product cases, however, compensate serious injuries. Almost one-third (29.3%) of Franklin County plaintiffs who prevailed on medical malpractice or product liability claims died from the negligence they proved.[268] The median recovery for those wrongful death plaintiffs was $312,500. In contrast, the median award for federal plaintiffs who successfully prosecuted tort claims growing out of aviation accidents was more than twice as high—$655,000.[269] Few individuals would trade their lives for either $312,500 or $655,000; both figures undoubtedly undervalue human life. The comparison, however, suggests that jury awards in medical malpractice and product liability cases are modest given the extent of injuries in those cases and the value attached to similar injuries in other litigation categories.[270]

5. *Few Lawyers, Few Experts*

Plaintiffs and defendants employed surprisingly few lawyers and expert witnesses in the trials we studied. Plaintiffs averaged only 1.4 lawyers in product liability lawsuits and 1.3 lawyers in malpractice trials. Defendants employed more lawyers than plaintiffs did but still staffed trials sparingly. On average, 2.0 lawyers represented product liability defendants at trial, while only 1.6 lawyers represented malpractice defendants in the courtroom.

Expert witnesses were even more scarce. Plaintiffs called the most experts in product liability cases where they averaged 2.0 experts per trial. Defendants called only 1.0 experts in the average product liability case. In medical malpractice trials, long assumed to be a battleground of experts, plaintiffs introduced an average of 1.3 expert witnesses, while defendants relied upon an average of just 1.2 experts.

Few other studies count the number of experts or lawyers appearing in civil trials. The data from Franklin County, however, suggest that product liability and medical malpractice trials consume relatively few of these resources. Trials on other tort claims probably employ even fewer lawyers and experts, while controversies that settle outside the courtroom may rely upon the smallest

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STATES (1991); Bovbjerg et al., *supra* note 167.

[268] We exclude from these calculations the few plaintiffs who claimed only property damage in their successful product liability suits.

[269] *See* PRESS, *supra* note 7, at 4. Almost all claims growing out of aviation accidents are wrongful death claims, making this category an apt reference point for jurors' valuation of death cases.

[270] *See also* D. DEWEES ET AL., EXPLORING THE DOMAIN OF ACCIDENT LAW 422–23 (1996) (jurors tend to undercompensate the most severe injuries); Frank A. Sloan & Thomas J. Hoerger, *Uncertainty, Information and Resolution of Medical Malpractice Disputes*, 4 J. RISK & UNCERTAINTY 403 (1991) (suggesting that medical malpractice plaintiffs are undercompensated for their economic injuries).

number of lawyers.[271] Rather than subsidizing armies of lawyers and expert witnesses, the tort system appears to use those resources quite efficiently.

6. *Low Settlement Offers*

Our current database permits only preliminary comments about settlement patterns because we possess only information about cases that failed to settle. The available information, however, shows no evidence that defendants suffer in the settlement process. Defendants made low settlement offers even in cases they ultimately lost. Malpractice defendants often refused to discuss settlement on any terms. Win rates that overwhelmingly favored defendants backed up these practices; although defendants suffered some high verdicts, they paid less overall by pushing disputed cases to trial.

7. *Rational Verdict Patterns*

Without making an independent evaluation of the merits and damages of each case, it is impossible to judge the correctness of jury verdicts. Several of our findings, however, suggest that juries reach rational decisions in product liability and medical malpractice cases. We found no evidence that seriously injured plaintiffs prevailed more often than less grievously injured ones. Indeed, once we separated death and nondeath claims, survivors who suffered *less* serious injuries were more likely to succeed in court on their medical malpractice claims. A similar pattern emerged in product liability cases with plaintiffs who suffered moderate physical injuries securing jury verdicts more often than plaintiffs who experienced catastrophic ones. We also noticed that product liability plaintiffs who alleged property damage were more likely to win at trial than those who suffered any type of bodily injury.[272]

These distinctions may derive from varying settlement rates for the different injury categories; juries are not necessarily biased against plaintiffs who suffer the most debilitating physical injuries.[273] The patterns, however, refute the notion that juries premise liability on sympathy. The juries in our investigation did not favor the most seriously injured plaintiffs.

On the other hand, we did find links between the severity of a plaintiff's

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[271] One recent study, examining all tort filings in four Georgia counties, concluded that 96% of tort plaintiffs and 92% of tort defendants employed only one or two attorneys. *See* Eaton & Talarico, *supra* note 6, at 653. Indeed, three quarters of all plaintiffs employed only a single attorney. *See id.*

[272] The same trend appears in a database of verdicts rendered in federal tort trials. *See supra* note 256.

[273] *But see supra* note 87 and accompanying text (suggesting that psychological defenses may discourage jurors from finding in favor of these seriously injured plaintiffs).

injury and verdict size once liability was established. In bivariate tests, injury severity correlated significantly with verdict size for both product liability and medical malpractice claims. Juries, in other words, awarded the highest damages to the most seriously injured plaintiffs.

The only variation in this pattern was a tendency to *under*compensate wrongful death plaintiffs. Once again, this apparent distortion could arise from settlement behavior. Alternatively, it could signal the grim reality that catastrophic physical injuries impose higher economic costs than juries are willing to assign to a lost life. Whatever the origin of the pattern, it does not suggest excessive jury sympathy or pro-plaintiff bias. On the contrary, it may suggest that plaintiffs who die from a defendant's negligence fail to recover the full costs of that injury.

We detected some differences in recovery rates or verdict size based on plaintiff characteristics. Men appeared more likely than women to prevail in product liability trials, while women recovered higher verdicts from medical malpractice juries. Minor plaintiffs may have been more likely than adults to win malpractice claims. These differences, again, are as likely to derive from settlement patterns as from jury prejudice. They also, however, counsel caution in modifying tort rules without a fuller understanding of how those rules affect different classes of plaintiffs.[274]

Perhaps most intriguing, we found no evidence that juries penalize deep pocket institutional defendants either by imposing liability more readily or by assessing heavier damages. Once we controlled for other variables through regression analysis, institutional defendants were no more likely than individual defendants to lose jury verdicts; nor did they pay significantly higher verdicts when they did lose.[275] The only potential defense bias we identified was one in *favor* of medical doctors. Defendants with an M.D. degree appeared to win medical malpractice trials more often than health care workers who lacked that degree, even when we controlled for injury severity and type of alleged malpractice.

Our findings are consistent with a plethora of other studies concluding that civil juries are conscientious in their work and reach rational decisions. Social scientists agree that a plaintiff's likelihood of winning a jury verdict does not increase with the severity of injury; juries do not base fault decisions on injury severity.[276] On the other hand, verdict size for successful plaintiffs does increase

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[274] *See infra* notes 301–02 and accompanying text.

[275] These comparisons depend exclusively on the medical malpractice verdicts in our database. All of the product liability trials included institutional defendants, permitting no contrast between those defendants and individuals.

[276] *See, e.g.*, Corinne Cather et al., *Plaintiff Injury and Defendant Reprehensibility: Implications for Compensatory and Punitive Damage Awards*, 20 LAW & HUM. BEHAV. 189,

with severity of the injury, suggesting that jurors rationally peg damage awards to injury costs.[277] Several studies suggest that juries are quite similar to judges, lawyers, physicians, and other professionals both in assessing liability and valuing damages.[278] Indeed, there is some evidence that juries are more conservative than these other decisionmakers in personal injury cases.[279]

Much research on the "deep pocket" effect, moreover, is consistent with our conclusion that bias against corporate or institutional defendants does not exist. At the very least, any such bias depends upon the interplay of numerous factors. One often quoted study identified a deep pocket effect against some corporate defendants, but specifically noted that the effect did not hold in medical malpractice actions: doctors paid higher jury verdicts in those actions than hospitals did.[280] A recent simulation conducted with potential jurors found no significant difference in medical malpractice awards assessed against individuals

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201–02 (1996); Mark I. Taragin et al., *The Influence of Standard of Care and Severity of Injury on the Resolution of Medical Malpractice Claims*, 117 ANNALS INTERNAL MED. 780, 782 (1992). On the contrary, some research suggests that seriously injured plaintiffs are less likely to recover than less seriously injured ones. *See, e.g.*, Feigenson et al., *supra* note 87, at 608–12.

277 *See, e.g.*, Leticia Rodriguez & William R. Boggett, *Societal Considerations in Scaling Injury Severity and Effects*, 20 J. SAFETY RES. 73 (1989); Frank A. Sloan & Chee Ruey Hsieh, *Variability in Medical Malpractice Payments: Is the Compensation Fair?*, 24 L. & SOC'Y REV. 997, 1025 (1990) (injury severity is the dominant factor in a "systematic pattern[ ] underl[ying] differences in awards").

278 *See* FRANK A. SLOAN ET AL., SUING FOR MEDICAL MALPRACTICE 167–68 (1993); VIDMAR, *supra* note 2, at 221–35; Harry Kalven Jr., *The Dignity of the Civil Jury*, 50 VA. L. REV. 1055, 1065 (1964); Taragin et al., *supra* note 276; Neil Vidmar & Jeffrey J. Rice, *Assessments of Noneconomic Damage Awards in Medical Negligence: A Comparison of Jurors with Legal Professionals*, 78 IOWA L. REV. 883, 896–901 (1993).

279 *See, e.g.*, NEIL VIDMAR, *supra* note 2, at 169–70; Kevin M. Clermont & Theodore Eisenberg, *Trial by Jury or Judge: Transcending Empiricism*, 77 CORNELL L. REV. 1124, 1137 (1977) (federal judges find in favor of plaintiffs in a higher proportion of cases than juries do); Valerie P. Hans, *The Contested Role of the Civil Jury in Business Litigation*, 79 JUDICATURE 242 (1996); Valerie P. Hans & William S. Lofquist, *Jurors' Judgments of Business Liability in Tort Cases: Implications for the Litigation Explosion Debate*, 26 L. & SOC'Y REV. 85 (1992) (jurors scrutinize motives of personal injury plaintiffs with suspicion). There is also considerable evidence that jurors undercompensate the most seriously injured accident victims compared to less seriously injured victims. *See* Galanter, *supra* note 3, at 1116–20 (reviewing studies); *supra* notes 86–8, 159–65 and accompanying text.

280 *See* CHIN & PETERSON, *supra* note 254, at 44. Another study found that medical malpractice defendants paid more, on average, than defendants in other tort categories—even after controlling for injury severity and other factors. *See* Bovbjerg et al., *supra* note 167, at 21. The authors, however, concluded that this relationship was unlikely to stem simply from jury callousness toward a "deep pocket," in part because defendants also prevailed in most malpractice cases. *See id.* at 33–34. Instead, the authors proposed a special theory of case selection by plaintiff's lawyers in malpractice actions. *See id.* at 35–36.

or hospitals.[281] Other simulations suggest that jurors sometimes impose liability more readily on corporations than on individuals, but the difference derives from jurors' perception that the corporations could have done more to avoid the accident and thus are more at fault.[282] Defendant wealth and commercial conduct may also influence liability determinations, but these factors seem to affect decisions about individual defendants as well as corporate ones.[283]

A defendant's institutional status, in other words, is one of many factors that may affect liability in medical malpractice, product liability, and other tort trials. Researchers agree that juries follow no simplistic rule of imposing more liability or greater damages on corporate defendants. Indeed, as our findings suggest, institutional status may be irrelevant to liability and damage determinations once other factors (such as injury severity and liability admissions) are controlled.

8. *Trends Favoring Defendants*

Perhaps our most telling results are those showing strong pro-defendant trends through 1996. Product liability filings declined dramatically during the decade preceding 1997, and the number of verdicts also declined. The number of jury trials in malpractice cases increased somewhat in the late eighties and early nineties, but declined sharply after 1991. Thus, by 1996, the number of product liability complaints had been diminishing for many years, and verdicts in both product liability and medical malpractice cases were also on the decline.

The drop in plaintiff win rates and verdict amounts was even more striking. Only one plaintiff won a product liability verdict in Franklin County after 1991, and that award was for just $5,000. After 1991, medical malpractice defendants won three quarters of the cases they tried and encountered only one verdict exceeding one million dollars. Multivariate analysis of the malpractice claims dramatically underlines these trends. Even after controlling for injury severity and other factors, both the plaintiff's likelihood of prevailing at trial and the size of a successful plaintiff's verdict declined significantly over the twelve years we studied.

This result is particularly noteworthy because other researchers have noted that the number of jury verdicts usually bears an inverse relationship to the median size of those verdicts. As the number of verdicts decreases, in other

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[281] *See* VIDMAR, *supra* note 2, at 203–12; *see also id.* at 212–20 (describing additional studies).

[282] *See, e.g.*, Valerie P. Hans & M. David Ermann, *Responses to Corporate Versus Individual Wrongdoing*, 13 LAW & HUM. BEHAV. 151, 163 (1989); Robert J. MacCoun, *Differential Treatment of Corporate Defendants by Juries: An Examination of the "Deep-Pockets" Hypothesis*, 30 L. & SOC'Y REV. 121 (1996).

[283] *See* Hans & Ermann, *supra* note 282; MacCoun, *supra* note 282.

words, the verdict size tends to increase; this pattern emerges because small-ticket claims are more likely to settle, leaving only the larger cases for jury resolution.[284] For verdict size to decrease while the number of awards was also decreasing suggests a very strong pro-defendant trend.

Nationwide studies are less comprehensive, but similarly suggest that filings, trials, win rates, and recoveries are either steady or declining in medical malpractice and product liability actions. Tort filings in federal courts were steady as of 1993, while those in state court appear to have begun a modest decline.[285] One analysis of complaints filed in twenty-seven states between 1991 and 1993 concluded that, on average, tort filings decreased by six percent during those years.[286] The number of verdicts also appears to be declining, although there is some variation among counties.[287]

A few studies also signal falling victory rates and verdict sizes nationwide. James Henderson and Theodore Eisenberg found that the success rate for federal product liability plaintiffs declined from 40.5% in 1979 to 32.5% in 1987.[288] During the same period, tort plaintiffs in nonproduct cases suffered a similar, but less sharp, decline in their success rate, while plaintiffs pursuing nontort claims enjoyed a modest increase in the percentage of cases they won.[289]

Jury Verdict Research, a nationwide verdict gathering service, found that median jury awards for personal injury plaintiffs declined from $65,000 in 1990 to $55,660 in 1996.[290] That report is particularly intriguing because commercial reporters tend to gather information on the largest verdicts.[291] Another recent study of civil verdicts concludes that award size has been relatively constant in

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[284] *See, e.g.*, MARK PETERSON, CIVIL JURIES IN THE 1980S: TRENDS IN JURY TRIALS AND VERDICTS IN CALIFORNIA AND COOK COUNTY, ILLINOIS 29–31 (1987); Galanter, *supra* note 3, at 1114.

[285] *See* SMITH ET AL., *supra* note 1, at 2. Smith and his coauthors conclude that "[t]he number of tort case filings has remained stable since 1986" and that "[f]ederal tort caseloads have also remained fairly constant over the past 8 years." *Id.* The accompanying graph depicts this stability, but also shows a drop in state filings after 1992.

[286] *See* OSTROM & KAUDER, *supra* note 7, at 22; *see also* Eaton & Talarico, *supra* note 6, at 643 (tort filings in four Georgia counties declined between 1990 and 1993).

[287] *See* MOLLER, *supra* note 7, at 8.

[288] *See* Henderson & Eisenberg, *supra* note 75, at 523. The authors excluded asbestos-related claims from their study, but included cases resolved by motion, bench trial, settlement, and jury verdict. *See id.* at 522.

[289] *See id.* at 527–28.

[290] *See* 1 JURY VERDICT RESEARCH, INC., PERSONAL INJURY VALUATION HANDBOOK, CURRENT AWARD TRENDS IN PERSONAL INJURY 3 (1997).

[291] *See supra* note 46 and accompanying text. On the other hand, biases in commercial databases make it difficult to draw firm conclusions from this report. We would be reluctant to base conclusions on the Jury Verdict Research report alone.

real terms over the last thirty years; any "increase in the dollar value of awards over the past three decades can be attributed to a combination of inflation, and increases in real income, real medical costs and life expectancy."[292]

Our analyses go beyond these earlier studies and rather convincingly demonstrate significant declines in both plaintiff win rates and verdict amounts. We measured time by month rather than year, studied a full twelve years of verdicts, obtained information on all verdicts from the studied jurisdiction, and employed a method of multivariate analysis specially tailored to the configuration of jury verdicts.[293] Our findings are limited to state courts, and perhaps to courts in urban counties similar to Franklin County, but the evidence of a pro-defendant trend is compelling.

B. *The Perils of Tort Reform*

Advocates of tort reform maintain that "[w]e have become a crazily litigious country"[294] in which plaintiff win rates and verdicts are "skyrocket[ing],"[295] "awards for punitive damages . . . [have] spiraled into the millions, not to mention billions of dollars,"[296] and the entire tort system is "out of balance, tilted to favor plaintiffs and reward their lawyers."[297] Our data, together with the findings of every researcher who has systematically examined tort verdicts, solidly refute these claims. There are problems in the tort system, just as there are difficulties in every complex organization, but the crisis described by most tort reformers does not exist.

To combat this illusory crisis, reformers most commonly propose: (1) limiting or abolishing punitive damages in tort actions; (2) capping compensatory damages, especially those for pain and suffering; (3) curtailing joint and several liability; and (4) eliminating the collateral source rule.[298] Each

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[292] MARK COOPER, THE VERDICT IS IN: JURY AWARDS UNCHANGED OVER 30 YEARS: A RESEARCH REPORT BY CITIZEN ACTION, at ii (Apr. 1995); *see also* Bovbjerg et al., *supra* note 167, at 21 (after controlling for other factors, awards in malpractice cases did not rise during the 1980s); Eisenberg, *supra* note 32, at 446 (concluding that there is "no discernible time trend in plaintiff win rates"); Sloan & Hsieh, *supra* note 277, at 1025 (stating that regression analysis revealed that, after controlling for other factors, verdict size in medical malpractice cases was not increasing as of 1990).

[293] *See supra* note 66 (discussing the advantages of tobit analysis).

[294] DAN QUAYLE, STANDING FIRM 312 (1994).

[295] Franklin W. Nutter, *The Fight for Civil Justice Reform*, INS. REV., Nov.–Dec., 1984, at 2, 5.

[296] Mobil Corporation, *Civil Justice: Balance the Scales*, N.Y. TIMES, Feb. 16, 1995, at A27.

[297] *Id.*

[298] *See, e.g.*, Galanter, *supra* note 3; Middleton, *supra* note 6; Philip Shuchman, *It Isn't*

of these proposals raises complex policy issues beyond the scope of this Article. Our findings, however, suggest two broad-based problems with these reforms.

First, current tort reform proposals uniformly and unabashedly favor defendants. Yet our data demonstrate that the system already prefers those litigants. Product manufacturers and health care providers, the defendants at the center of the tort reform storm, currently enjoy higher jury success rates than any other category of civil defendant. Although compensatory damages can be high for these claims, those damages correspond with injury severity. The most seriously injured plaintiffs, moreover, already suffer undercompensation. Punitive damages, finally, are rare—even nonexistent in some jurisdictions. Rather than restoring "balance" to the tort system, reform measures would exacerbate trends that already favor defendants.

Defendants, moreover, benefit from their current advantages both at trial and in settlement negotiations. Most medical malpractice and product liability insurers are repeat players with experiential knowledge of low plaintiff win rates, verdict distributions, and the scarcity of punitive damages. While tort reformers deplore pro-plaintiff juries, defendants know better. The high percentage of zero offers in medical malpractice cases, even on claims that plaintiffs eventually win, suggests that defendants are well aware of their current dominance in the tort system. Further analysis of claims that defendants settle and plaintiffs withdraw must await more information on those claims. The data presented here, however, strongly suggest that medical malpractice and product liability defendants already enjoy considerable strength in both settlement negotiations and the courtroom.

In this context, reforms that skew the balance further in favor of defendants seriously threaten the interests of citizens who suffer debilitating injuries from provable negligence. It is likely, for example, that although punitive damages and million dollar verdicts are rare in tort litigation, the risk of those awards helps bring some defendants to the settlement table. These are not necessarily, as tort reformers suggest, defendants who are blameless. Instead, they may well be defendants who have engaged in actionable negligence, but, without the risk of a high jury verdict, would prefer to take their chances with the jurors who have proven so sympathetic to defendants over the years. The proposals currently favored by reformers, in other words, are as likely to depress verdicts and settlements for seriously injured negligence victims as to discourage the frivolous nuisance suits so prominently touted by reform advocates.[299] Indeed, if

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that the Tort Lawyers Are So Right, it's Just that the Tort Reformers Are So Wrong, 49 RUTGERS L. REV. 485 (1997).

[299] Nor will the reforms discussed above improve the distribution of economic resources among tort victims. It is true that the current tort system allows some plaintiffs to recover high verdicts in court, while others (who may have suffered equally actionable negligence) recover

the system already does a relatively good job of distinguishing meritorious and nonmeritorious claims (as much research suggests),[300] then the greatest impact of these reforms will fall on plaintiffs with valid claims.

Our research suggests a second danger of current tort reform proposals. We identified numerous gender distinctions in product liability and medical malpractice trials, and we noticed at least one age-based distinction. Other researchers have documented race differences in tort litigation;[301] economic and social class distinctions probably exist as well. Substantially more research is needed to understand why these differences arise and how they can be combated. Current reform proposals, however, fail to explore these differences, to take them into account, or to consider whether reform measures might aggravate these tendencies. Before adopting proposals that will uniformly advantage defendants, we should consider whether the burden of those proposals will fall disproportionately on some plaintiffs—especially when we have evidence that gender, age, race, and perhaps class matter in the courtroom.[302]

CONCLUSION

Current tort reform is a blunderbuss. Based on anecdote and designed to favor defendants, reform measures fail to address the tort system as it stands. Our comprehensive analysis of medical malpractice and product liability verdicts reveals a system of few trials, low win rates, declining verdicts, and rare punitive awards. Our research includes all verdicts from a representative urban county over a full twelve years, thus avoiding the biases of more selective databases or restricted time periods. Our multivariate analyses, moreover, dramatically illustrate pro-defendant trends by controlling for other relevant variables. In the face of this evidence, exaggerated anecdotes and wild stories no longer have a place in responsible review of the tort process. Rather than heed those fictions, legislators and voters should turn their attention to our growing knowledge of how the tort system truly operates.

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low settlements or nothing at all. Conspicuously absent from current reform measures, however, are any proposals to redistribute potential savings among tort victims. Instead, potential defendants (or perhaps their consumers) reap all of the savings.

[300] *See, e.g.*, VIDMAR, *supra* note 2; Sloan & Hsieh, *supra* note 249, at 428; Taragin et al., *supra* note 276.

[301] *See, e.g.*, CHIN & PETERSON, *supra* note 254; Sloan & Hsieh, *supra* note 249.

[302] For a series of articles beginning this task, see, e.g., Chamallas, *supra* note 61; Lucinda M. Finley, *Female Trouble: The Implications of Tort Reform for Women*, 64 TENN. L. REV. 847 (1997); Koenig & Rustad, *supra* note 79; Troy L. Cady, Note, *Disadvantaging the Disadvantaged: The Discriminatory Effects of Punitive Damage Caps*, 25 HOFSTRA L. REV. 1005 (1997); Lisa M. Ruda, Note, *Caps on Noneconomic Damages and the Female Plaintiff: Heeding the Warning Signs*, 44 CASE W. RES. L. REV. 197 (1993).